#### **Pipeline Group Factual Report**

#### ATTACHMENT 42

PHMSA Selected Accident Forms for LF ERW

Carmichael, Mississippi DCA 08 MP 001

Form Approved OMB No. 2137-0047



U.S. Department of Transportaion Research and Special Programs Administration

## ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date SEP 30,2004

No. <u>20040269 -- 2650</u> (DOT Use Only)

INSTRUCTIONS		and the second s
Important: Please read the separate instructions for con		
requested and provide specific examples. If y		of the instructions you can obtain one from
the Office Of Pipeline Safety Web Page at		

	Offshore: O Yes • No (comple d if offshore)
a.*Line segment name or ID <b>HEARNE PRODUCTS</b> b. Accident o <u>n</u> Federal la <u>n</u> d other than Outer Continental	d. Area Block #
Shelf O Yes No	State / / or Outer Continental Sheif
c. Is pipeline interstate? O Yes • No	State 7 7 of Outer Continental Orien
2. Location of system involved (check all that apply)	a. Type of leak or rupture
Operator's Property    Pipeline Right of Way	O Leak: O Pinhole O Connection Failure (complete sec. H5) Puncture, diameter (inches)
High Consequence Area (HCA)?  Describe HCA OP	Rupture: O Circumferential - Separation Longitudinal - Tear/Crack, length (inches) 50
3. Part of system involved in accident	Propagation Length, total, both sides <i>(feet)</i> 0 O N/A
O Abov e Ground Storage Tank O Cavern or other below ground storage facility	O Other
O Cavern or other below ground storage facility O Pump/meter station; terminal/tank farm piping and	
equipment, including sumps	b. Type of block valve used for isolation of immediate section:
Other Specify:	Upstream:
Onshore pipeline, including valve sites	Downstream: ☐ Manual ☐ Automatic ➤ Remote Control
Offshore pipeline, including platforms	Check Valve c. Length of segment isolated148,579 ft
if failure occurred on <b>pipeline</b> , complete items a - g:	d. Distance between valves 148.579 ft
4. Failure occurred on	e. Is segment configured for internal inspection tools? Yes O No
O Body of Pipe Pipe Seam O Scraper Trap	·
O Pump O Sump O Joint O Sump O Metering Facility	f. Had there been an in-line inspection device run at the point of failure? Yes O No O Don't Know
Q Repair Sleeve O Welded Fitting O Bolted Fitting	O Not Possible due to physical constraints in the system
O Girth Weld	g. If Yes, type of device run (check all that apply)
Other (specify)	➤ High Resolution Magnetic Flux tool Year run:
Year the component that failed was installed: /1948/	Low Resolution Magnetic Flux tool Year run:
5. Maximum operating pressure (MOP)	UT tool Year r
Estimated pressure at point and time of accident:     1.032	Geometry tool Year run: 2001
b. MOP at time of accident:	Caliper tool Year run:
	☐ Crack tool Year ru  Hard Spot tool Year ru
O Yes • No	☐ Hard Spot tool Year ru ☐ Other tool Year π.
PART D. MATERIAL SPECIFICATION	PART E - ENVIRONMENT
1. Nominal pipe size (NPS) / 10.75 / in.	
2. Wall thickness	1. Area of accident O In open ditch
3. Specification GRADE B SMYS / 35000 /	O Under pavement O Above ground Underground O Under water
4. Seam type LF ERW	Underground O Under water O Inside/under building O Other
5. valve type	O miside/under building
6. Manufactured by YOUNGSTOWN in year ! 1948	2. Depth of cover: 24 inches
PART F-CONSEQUENCES	
Consequences (check and complete all that apply)     a. Fatalities Injuries	c. Product ignited O Yes ● No d. Explosion O Yes ● No
Number of operator employees: 0 0	e. Evacuation (general public only)
Contractor employ ees working for operator:	Reason for Evacuation:
General public: 0 0	O Precautionary by company
Totals:0	O Evacuation required or initiated by public official
	f. Elapsed time until area was made safe:
If Yes, how long? 3 days 19 hours 40 minutes  2. Environmental Impact	// hr// min.
a. Wildlife Impact: Fish/aquatic O Yes No  Bird Yes No	. Water Contamination: ○ Yes ● No (If Yes, provide the following)  Amount in water barrels
Terrestrial ○ Yes ● No	Ocean/Seawater O No O Yes
<ul> <li>b. Soil Contamination ● Yes O No</li> <li>If Yes, estimated number of cubic yards: 23,000</li> </ul>	Surface O No O Yes
c. Long term impact assessment performed: ○ Yes ● No	Groundwater O No O Yes
d. Anticipated remediation ● Yes O No	Drinking water O No O Yes (If Yes, check below.) O Private well O Public water intake
If Yes, Check all that apply: Surface water Groundwater	Soil Vegetation Wildlife

PART G - LEAK DETECTION INFORMATION
1. Computer based leak detection capability in place? • Yes O No
2. Was the release intially detected by? (check one): O CPM/SCADA-based system with leak detection
O Static shut-in test or other pressure or leak test
O Local operating personnel, procedures or equipment
Remote operating personnel, including controllers
O Air patrol or ground surveillance
O A third party O Other (specify)
3. Estimated leak duration days 0 hours 2
PART HI APPARENT CAUSE  Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.
H1 - CORROSION a. Pipe Coating b. Visual Examination c. Cause of Corrosion
1. External Corrosion  O Bare  O Localized Pitting  O Galvanic  O Stray Current  Microbiological
Other SELECTIVE SEAM Q Cathodic Protection Disrupted
2. O Internal Corrosion CORROSION Stress Corrosion Cracking Selective Seam Corrosion
(Complete items a - e
where applicable.)
d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?  O No  Yes, Year Protection Started: / 1950 /
1 · · · · · · · · · · · · · · · · · · ·
e. Was pipe previously damaged in the area of corrosion?  No O Yes => Estimated time prior to accident: I I years I I months Unknown
H2 - NATURAL FORCES
3. O Earth Movement => O Earthquake O Subsidence O Landslide O Other
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other
7. O High Winds
H3 - EXCAVATION DAMAGE
8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party (complete a-f) a. Excavator group
O General Public O Government O Excavator other than Operator/subcontractor
b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Raildroad
Other liquid or gas transmission pipeline-operator or their contractor
O Nautical Operations O Other
c. Excavation was: Open Trench Osub-strata (boring, directional drilling, etc)
d. Excavation was an ongoing activity (Month or longer) O Yes ● No If Yes, Date of last contact / /
e. Did operator get prior notification of excavation activity?
O Yes; Date received: _/_/ mo. // day _// yr. O No
Notification received from: O One Call System O Excavator O Contractor O Landowner
f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv) i. Temporary markings: O Flags O Stakes O Paint ii. Permanent markings: O Yes O No iii. Marks were (check one): O Accurate O Not Accurate iv. Were marks made within required time? O Yes O No
H4 - OTHER OUTSIDE FORCE DAMAGE
10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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	I/OR W	ELD PAIL	URES				
Material			_		_	_	_
14. O Body of Pipe	=>0	Dent	O Gou	iĝe	O Bend	O <sub>Arc</sub> Burn	O Other
15. O Component	=>O	Valve	O Fitt	ting	O Vessel	O Extruded Outlet	O Other
16. O Joint	<b>-</b> -	Gasket	O 0-F	Ring	O Threads		O Other
Weld							
17. O Butt	<b>-:</b> O	Pipe	O Fai	brication	1		O Other
18. O Fillet	Q=	Branch	O Hot	t Tap	O Fitting	O Repair Sleeve	O Other
19. O Pipe Seam		LF ERW			O Seamless	OFlash Weld	_
		HF ERW			O Spiral		O Other
Complete a-g if yo  a. Type of failure:  O Construction  O Material Defo	<i>u indic</i> Defect ect	ate any c	ause ii Poor Worl	<i>n part</i> kmansh	H5.		O Poor Construction Procedures
		damage su	stained i	n transp	ortation to the co	nstruction or fabricati	ion site? O Yes O No
c. Was part which	leaked p	ressure tes	sted befo	ore accid	dent occurred?	O Yes, complete o	l-g O No
d. Date of test:			yr. <u>/</u>		_/ mo/	/ day	
e. Test medium:	O Wate	er O	Inert G	as C	Other		
f. Time held at tes	t pressur	re: <u>/</u>	/ hr.				
g. Estimated test p	oressure	at point of	acciden	t:	P	SIG	
H6 - EQUIPMENT							
20. O Malfunction of	Control/I	Relief Equi	ipment			O Instrumentation	
					D Block valve		O Power failure
21. O Threads Strippe	ed Brokei	n Pipe Cou	ıpling	=> (	Other Nipples	O Valve Threads	O Power failure O Dresser Couplings
21. O Threads Strippe 22. O Seal Failure	ed Broke	n Pipe Cou	upling	=> ( => (	Other Nipples Other	O Valve Threads	O Dresser Couplings
,,				=> ( => (	O Other O Nipples O Other O Gasket	O Valve Threads	O Dresser Couplings
22. O Seal Failure  H7 - INCORRECT O  23. O Incorrect Opera a. Type O Inade	PERAT ation quate Pr	ION ocedures		) > <= ) \ \ \	Other  Nipples  Other  Gasket  Other	O Valve Threads	O Dresser Couplings O Seal/Pump Packing
22. O Seal Failure  H7 - INCORRECT O  23. O Incorrect Opera a. Type O Inade O Other	PERAT ation quate Pr	ION ocedures	O Ina	=> ( => ( => (	Other Nipples Other Gasket Other	O Valve Threads O O-Ring  O Failure to Folio	O Dresser Couplings O Seal/Pump Packing
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22. O Seal Failure  H7 - INCORRECT O  23. O Incorrect Opera a. Type O Inade O Other b. Number of employe	PERAT ation quate Pro	ION ocedures ved who fa	O Inadaled a po	=> ( => ( =x ( dequate	O Other  Nipples Other  Gasket Other Safety Practices dent test: drug te	O Valve Threads O O-Ring  Failure to Folio	O Dresser Couplings O Seal/Pump Packing  ow Procedures alcohol test 1 1
22. O Seal Failure  H7 - INCORRECT O  23. O Incorrect Opera a. Type O Inade O Other b. Number of employe  H8 - OTHER  24. O Miscellaneous,	PERAT ation quate Property involves involved describe	ION ocedures ved who fa	O Inac	dequate	O Other  Nipples Other  Gasket Other Safety Practices dent test: drug te	O Valve Threads O O-Ring  Failure to Folio	O Dresser Couplings O Seal/Pump Packing  ow Procedures  alcohol test / /
22. O Seal Failure  H7 - INCORRECT O  23. O Incorrect Opera a. Type O Inade O Other b. Number of employe  H8 - OTHER  24. O Miscellaneous, 25. O Unknown O Investigat	PERAT ation quate Properties involves involved	ION ocedures ved who fa	O Inacailed a po	dequate	O Other O Nipples O Other O Gasket O Other Safety Practices dent test: drug te	O Valve Threads O O-Ring  o Failure to Folio  st: / /	O Dresser Couplings O Seal/Pump Packing  ow Procedures alcohol test I I
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22. O Seal Failure  H7 - INCORRECT O  23. O Incorrect Opera a. Type O Inade O Other b. Number of employe  H8 - OTHER  24. O Miscellaneous, C Investigate  PART I - NARRATIVE  A LABORATORY ANAL	PERAT ation quate Properties involved describetion Come	ION ocedures ved who fa e: plete O RIPTION AS CONDU	O Inadailed a po	dequate	O Other O Nipples O Other O Gasket O Other Safety Practices dent test: drug te	O Valve Threads O O-Ring  Failure to Folio  St: / /  t a supplemental repo	O Dresser Couplings  O Seal/Pump Packing  ow Procedures  alcohol test I I  ort when investigation is complete)  NT (Attach additional sheets as necessary)
22. O Seal Failure  H7 - INCORRECT O  23. O Incorrect Opera a. Type O Inade O Other b. Number of employe  H8 - OTHER  24. O Miscellaneous, C Investigate  PART I - NARRATIVE  A LABORATORY ANAL	PERAT ation quate Properties involved describetion Come	ION ocedures ved who fa e: plete O RIPTION AS CONDU	O Inadailed a po	dequate	O Other O Nipples O Other O Gasket O Other Safety Practices dent test: drug te	O Valve Threads O O-Ring  Failure to Folio  St: / /  t a supplemental repo	O Dresser Couplings  O Seal/Pump Packing  ow Procedures  alcohol test I I  ort when investigation is complete)  NT (Attach additional sheets as necessary)
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NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed \$25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed \$5000,000 as provided in 49 USC 60122

Form Approved OMB No. 2137-0047



U.S. Department of Transportaion Research and Special Programs Administration

## ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JAN 05,2006

No. <u>20060012 -- 4348</u> (DOT Use Only)

INSTRUCTIONS		
Important: Please read the separate instructions for con		
requested and provide specific examples. If	•	of the instructions you can obtain one from
the Office Of Pipeline Safety Web Page at http	p://ops.dot.gov	
PART A - GENERAL REPORT INFORMATION check:	Original Report	Supplemental Report 🗵 Final Report
a. Operator's OPS 5-digit Identification Number (if know)     b. If Operator does not own the pipeline, enter Owner's OPS 5-digit Identification Number (if know)		ow) /
		<u> </u>
d. Operator street address 539 S MAIN STREET		
e. Operator address FINDLAY HANCOCK OH 45840 City, County, State and ZIP Code		
IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED AS REVISED IN CY 2001.		
2. Time and date of the accident	5 Locace (Estimated)	
/ <u>930 /</u> / <u>/ 11 / / 08 /</u> /200 <u>5</u> /	5. Losses (Estimated)	
hr. month day year		sses reimbursed by operator:
3. Location of accident	Public/private property	·
(If offshore, do not complete a through d See Part C.1)	Cost of emergency res	
a. Latitude: 41.0870N Longitude: -87.7228W	Cost of environmental	
(If not available, see instructions for how to provide specific location)	Other Costs	\$0
b. KANKAKEF KANKAKEF	(describe)	A SATISLANDE OF THE SATISLAND OF THE SAT
City and County or Parish	0	
c. IL 60964	Operator Losses:	2.444
State and Zip Code ROW 819	Value of product lost	\$ 3.414
d. Mile post/valve station or Survey Station no.	Value of operator prop	
(whichever gives more accurate location)	Other Costs	\$ <u>0</u>
ROW 819 /// STATION PLUS 3976+70	(describe)	
4. Telephone report	Total Costs:	\$ <u>506,314</u>
I         778871         I         11         I         08         I         2005         I           NRC Report Number         month         day         year		
6. Commodity Spilled ● Yes O No (If Yes, complete Parts a through c where applicable)		c. Estimated amount of commodity involved :
a. Name of commodity spilledGASOLINE		Barrels
bClassification of commodity spilled:		O Gallons (check only if spill is
O HVLs/other flammable or toxic fluid which is a gas at ambient co		less than one barrel)
<ul> <li>CO<sub>2</sub> or other non-flammable, non-toxic fluid which is a gas at am</li> <li>Gasoline, diesel, fuel oil or other petroleum product which is a lique</li> <li>Crude oil</li> </ul>		Amounts : Spilled : <u>52</u>
		Recovered: <u>15</u>
CAUSES FOR SMALL SPILLS ONLY (5 gallons to under 5 barro	els): (For large spills	[5 barrels or greater] see Part H)
O Corrosion O Natural Forces O Excavation Damage	O Other Ous	ide Force Damage
O Materal and/or Weld Failures O Equipment	O Incorrect C	Operation O Other
PART B - PREPARER AND AUTHORIZED SIGNATURE		
ANN-MARIE KAYSER, MPL ES&R (type or print) Preparer's Name and Title	MITEMAN TO A TO THE STATE OF TH	(419) 429-5629  Area Code and Telephone Number
73 he at himmy tradegual a transparent rates		·
AKAYSER@MARATHONPETROLEUM.COM Preparer's E-mail Address	-	(419) 421-3917 Area Code and Facsimile Number
Authorized Signature (type or print) Name a	nd Title Date	Area Cod and Telephone Number
Authorized Signature (type or print) Name a	nd nde Date	Area Got and Tolephone Number

	Offshore: O Yes • No (comple d if offshore)
a. Line segment name or ID <b>WABASH 12</b> b. Accident o <u>n</u> Federal land other than Outer Continental	d. Area Block #
Shelf Yes O No	State // or Outer Continental Shelf
c. Is pipeline interstate? • Yes O No	otato
2. Location of system involved (check all that apply)	a. Type of leak or rupture
Operator's Property	● Leak: ● Pinhole ○ Connection Failure (complete sec. H5)
Pipeline Right of Way     High Consequence Area (HCA)?	O Puncture, diameter (inches)
Describe HCA	O Rupture: O Circumferential - Separation O Longitudinal - Tear/Crack, length (inches)
3. Part of system involved in accident	Propagation Length, total, both sides (feet) O N/A
O Above Ground Storage Tank	O Other
O Cavern or other below ground storage facility O Pump/meter station: terminal/tank farm piping and	Other
O Pump/meter station; terminal/tank farm piping and equipment, including sumps	b. Type of block valve used for isolation of immediate section:
O Other Specify:	Upstream: Manual Automatic Remote Control
numerin	Check Valve
Onshore pipeline, including valve sites	Downstream: Manual Automatic Remote Control
Ortshore pipeline, including platforms	Check Valve c. Length of segment isolated88,704 ft
if failure occurred on <b>pipeline</b> , complete items a - g:	d. Distance between valves <u>88,704</u> ft
4. Failure occurred on	e. Is segment configured for internal inspection tools?● Yes ○ No
O Body of Pipe Pipe Seam O Scraper Trap O Pump O Sump O Joint	f. Had there been an in-line inspection device run at the point of
O Component O Valve O Metering Facility	failure? Yes O No O Don't Know
O Repair Sleeve O Welded Fitting O Bolted Fitting O Girth Weld	O Not Possible due to physical constraints in the system
O Other (specify)	g. If Yes, type of device run (check all that apply)  High Resolution Magnetic Flux tool Year run:2002
	High Resolution Magnetic Flux tool Year run:  Low Resolution Magnetic Flux tool Year run:
Year the component that failed was installed: / 1958 /	UT tool Year
Maximum operating pressure (MOP)     a. Estimated pressure at point and time of accident:	▼ Geometry tool Year run: 2002
<b>898</b> PSIG	Caliper tool Year run:
b. MOP at time of accident:  1.244 PSIG	Crack tool Year ru
c. Did an overpressurization occur relating to the accident?	 ☐ Hard Spot tool Year ru
O Yes • No	Other tool Year rt
PART D - MATERIAL SPECIFICATION	PART E ENVIRONMENT
1. Nominal pipe size (NPS) <u>/ 12</u> / in.	1. Area of accident O In open ditch
2. Wall thickness	O Under pavement O Above ground
3. Specification <u>API 5LX46</u> SMYS / 46000 /	O Underground O Under water
4. Seam type LOW FREQUENCY ELEC. RESISTANTT V	O Inside/under building Other CREEK
5. valve type	
6. Manufactured by REPUBLIC in year [ 1958 ]	2. Depth of cover: 48 inches
PART F - CONSEQUENCES	
Consequences (check and complete all that apply)     a. Fatalities Injuries	c. Product ignited O Yes ● No d. Explosion O Yes ● No
Number of operator employees:	e. Evacuation (general public only) / people
Contractor employ ees working for operator:	Reason for Evacuation:
General public:	O Precautionary by company
Totals:0	O Evacuation required or initiated by public official
b. Was pipeline/segment shutdown due to leak? ■ Yes O No	f. Elapsed time until area was made safe:
If Yes, how long? <u>3</u> days <u>13</u> hours <u>3</u> minutes	// hr/_ min.
2. Environmental Impact a. Wildlife Impact: Fish/aquatic Q Yes  No	e. Water Contamination:   Yes O No (If Yes, provide the following)
Bird Q Yes 🛡 No	Amount in water1 barrels
Terrestrial O Yes ● No b. Soil Contamination ● Yes O No	Ocean/Seawater • No O Yes  Surface O No • Yes
If Yes, estimated number of cubic yards: 167	Surface O No ● Yes Groundwater O No ● Yes
c. Long term impact assessment performed: Yes O No	Drinking water No Sylves (If Yes, check below.)
d. Anticipated remediation ● Yes ○ No	O Private well O Public water intake
If Yes, Check all that apply: Surface water 🏻 Groundwater 🔻	Soil Vegetation Wildlife

PARI G - LEAN DETEC	
Computer based leak dete	•
2. Was the release intially d	
	O Static shut-in test or other pressure or leak test
	O Local operating personnel, procedures or equipment
	O Remote operating personnel, including controllers
	O Air patrol or ground surveillance
	O A third party Other (specify) LANDOWNER
Estimated leak duration	
PART H - APPARENT CA	you indicate. Secc the instructions for guidance.
H1 - CORROSION	a. Pipe Coating b. Visual Examination c. Cause of Corrosion
O External Corrosion	O Bare O Localized Pitting O Galvanic O Atmospheric Stray Current O Microbiological O Cathodic Protection Disrupted
2. O Internal Corrosion	Stress Corrosion Cracking
(Complete items a - e	O Selective Seam Corrosion O Other
where applicable.)	
	d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?  O No O Yes, Year Protection Started:
	e. Was pipe previously damaged in the area of corrosion?  O No O Yes => Estimated time prior to accident: // years // months Unknown
H2 - NATURAL FORCES	_
3. O Earth Movement	=>O Earthquake O Subsidence O Landslide O Other
4. O Lightning	
5. O Heavy Rains/Floods	=>O Washouts O Flotation O Mudslide O Scouring O Other
6. O Temperature	=> O Thermal stress O Frost heave O Frozen components O Other
7. O High Winds	
H3 - EXCAVATION DAMA	AGE
8. O Operator Excavation	Damage (including their contractors/Not Third Party)
9. O Third Party (complete	• • • • • •
a. Excavator group	p neral Public O Government O Excavator other than Operator/subcontractor
	ad Work O Pipeline O Water O Electric O Sewer O Phone/Cable
• •	ndowner-not farming related O Farming O Raildroad
	ner liquid or gas transmission pipeline-operator or their contractor
	utical Operations O Other
c. Excavation was	
	an ongoing activity (Month or longer) O Yes • No If Yes, Date of last contact / /
	prior notification of excavation activity?
O Yes; Date	^
Notification rec	ceived from: O One Call System O Excavator O Contractor O Landowner
ii. Permanent iii. Marks were	arked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv)  / markings: O Flags O Stakes O Paint t markings: O Yes O No e (check one): O Accurate O Not Accurate ks made within required time? O Yes O No
H4 - OTHER OUTSIDE F	ORCE DAMAGE
10. O Fire/Explosion as p	orimary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other	vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previou	usly Damaged Pipe
13. O Vandalism	

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PHNSA Data Facsimile

Materia				.URI	=5			
	ıl							
14. 0	Body of Pipe	=>0	Dent	0	Gouge	O Bend	O Arc Burn	O Other
15. 0	Component	=>0	Vaive	0	Fitting	O Vessel	OExtruded Outlet	O Other
16. 0	Joint	<b>=</b> :O	Gasket	0	O-Ring	O Threads		O Other
Weld								
17. 0	Butt	Q:=	Pipe	0	Fabrication	n		O Other
18. 0	Fillet	Q=	Branch	0	Hot Tap	O Fitting	O Repair Sleeve	O Other
19.	Pipe Seam		LF ERW			O Seamless	OFlash Weld	
			HF ERW			O Spiral		Other LACK OF FUSION/COLD
Compl	ete a-g if you					H5		
	Type of failure:		_			_		
! _			=> O F	oor \	Norkmansh	nip O Procedi	ure not followed C	Poor Construction Procedures
O			danaa.a.		ad in trans	nortation to the o	to-stien er fehriestie	on site? O Yes     ● No
1							Yes, complete d	
l	Date of test:					_/ mo. <u>/ 12</u>	· ·	g - No
t								
f. T	ime held at test	pressur	re: <u>/ 8</u>		hr.			
g. E	Estimated test pr	essure	at point of	acci	dent:	<b>1556</b> P	SIG	
H6 - EC	UIPMENT							
20. O	Malfunction of C	Control/I	Relief Equi	pmer			O Instrumentation	
							O Relief valve	
					(	J Other		
						` · · · <u> </u>	O	0
21. O	Threads Stripped	i Broke	n Pipe Cou	pling	=> (	O Nipples	O Valve Threads	O Dresser Couplings
	Threads Stripped	i Broke	n Pipe Cou	pling	) <= ) ) }	O Nipples O Other O Gasket	O Valve Threads O O-Ring	O Dresser Couplings O Seal/Pump Packing
22. O	Seal Failure			pling	) <= ) ) }	O Nipples O Other O Gasket	O Valve Threads O O-Ring	O Dresser Couplings
22. O	Seal Failure	ERAT		pling	) <= ) ) }	O Nipples O Other O Gasket	O Valve Threads O O-Ring	O Dresser Couplings O Seal/Pump Packing
22. O  H7 - INC	Seal Failure  CORRECT OP  Incorrect Operat	PERAT	ION		; ; ; ;	O Nipples O Other O Gasket O Other	O Valve Threads O O-Ring	O Dresser Couplings O Seal/Pump Packing
22. O	Seal Failure  CORRECT OP  Incorrect Operat  O Inadeq	PERAT ion uate Pre	ION ocedures	0	=> ( =: ( Inadequate	O Nipples O Other O Gasket O Other Other	O Valve Threads O O-Ring O Failure to Follow	O Dresser Couplings O Seal/Pump Packing
22. O  H7 - INC  23. O  a. Type	Seal Failure  CORRECT OP  Incorrect Operat  O Inadeque O Other	ERAT ion uate Pro	ION ocedures	0	=> ( =: ( ( Inadequate	O Nipples O Other O Gasket O Other Other	O Valve Threads O O-Ring  O Failure to Follow	O Dresser Couplings O Seal/Pump Packing
22. O  H7 - INC  23. O  a. Type	Seal Failure  CORRECT OP  Incorrect Operat  O Inadeque O Other  ber of employee	ERAT ion uate Pro	ION ocedures	0	=> ( =: ( ( Inadequate	O Nipples O Other O Gasket O Other Other	O Valve Threads O O-Ring  O Failure to Follow	O Dresser Couplings O Seal/Pump Packing w Procedures
22. O  H7 - INC  23. O  a. Type  b. Numl  H8 - OT	Seal Failure  CORRECT OP  Incorrect Operat  O Inadeque O Other ber of employee	PERAT ion uate Pro	ION ocedures red who fa	O iiled a	=> ( ==x ( Inadequate	O Nipples O Other O Gasket O Other  Safety Practices dent test: drug te	O Valve Threads O O-Ring  S O Failure to Followest: //	O Dresser Couplings O Seal/Pump Packing  W Procedures alcohol test
22. O  H7 - INC  23. O  a. Type  b. Numl  H8 - OT  24. O	Seal Failure  CORRECT OP  Incorrect Operat  O Inadeque O Other ber of employee  HER  Miscellaneous, description	PERAT ion uate Pro	ION ocedures red who fa	O iiled a	=> ( ==x ( Inadequate	O Nipples O Other O Gasket O Other  Safety Practices dent test: drug te	O Valve Threads O O-Ring  O Failure to Follow	O Dresser Couplings O Seal/Pump Packing  W Procedures alcohol test
22. O  H7 - INC  23. O  a. Type  b. Numl  H8 - OT  24. O    25. O	Seal Failure  CORRECT OP  Incorrect Operat  O Inadeq O Other ber of employee  HER  Miscellaneous, d  Unknown O Investigation	PERAT ion uate Pro s involv	ION ocedures ved who fa	O iiiled a	=> (  => (  Inadequate	O Nipples O Other O Gasket O Other Safety Practices dent test: drug te	O Valve Threads O O-Ring  S O Failure to Followest: //	O Dresser Couplings  O Seal/Pump Packing  W Procedures  alcohol test
22. O  H7 - INC  23. O  a. Type  b. Numl  H8 - OT  24. O    25. O	Seal Failure  CORRECT OP  Incorrect Operat  O Inadeq O Other ber of employee  HER  Miscellaneous, d  Unknown O Investigation	PERAT ion uate Pro s involv	ION ocedures ved who fa	O iiiled a	=> (  => (  Inadequate	O Nipples O Other O Gasket O Other Safety Practices dent test: drug te	O Valve Threads O O-Ring  S O Failure to Followest: //	O Dresser Couplings O Seal/Pump Packing  w Procedures alcohol test
22. O  H7 - INC  23. O  a. Type  b. Numl  H8 - OT  24. O    25. O	Seal Failure  CORRECT OP  Incorrect Operat O Inadeq O Other ber of employ ee  HER  Miscellaneous, d Unknown O Investigatio	PERAT  ion  uate Pro s involv  describe on Comp	ION ocedures ved who fa	O illed a	=> (  =-x  Inadequate  post-accid	O Nipples O Other O Gasket O Other Safety Practices dent test: drug te	O Valve Threads O O-Ring O Failure to Followest: ///	O Dresser Couplings  O Seal/Pump Packing  W Procedures  alcohol test
22. O  H7 - INC  23. O  a. Type  b. Numl  H8 - OT  24. O    25. O	Seal Failure  CORRECT OP  Incorrect Operat O Inadeq O Other ber of employ ee  HER  Miscellaneous, d Unknown O Investigatio	PERAT  ion  uate Pro s involv  describe on Comp	ION ocedures ved who fa	O illed a	=> (  =-x  Inadequate  post-accid	O Nipples O Other O Gasket O Other Safety Practices dent test: drug te	O Valve Threads O O-Ring O Failure to Followest: ///	O Dresser Couplings O Seal/Pump Packing  W Procedures alcohol test
22. O  H7 - INC  23. O  a. Type  b. Numl  H8 - OT  24. O    25. O	Seal Failure  CORRECT OP  Incorrect Operat O Inadeq O Other ber of employ ee  HER  Miscellaneous, d Unknown O Investigatio	PERAT  ion  uate Pro s involv  describe on Comp	ION ocedures ved who fa	O illed a	=> (  =-x  Inadequate  post-accid	O Nipples O Other O Gasket O Other Safety Practices dent test: drug te	O Valve Threads O O-Ring O Failure to Followest: ///	O Dresser Couplings O Seal/Pump Packing  W Procedures alcohol test
22. O  H7 - INC  23. O  a. Type  b. Numl  H8 - OT  24. O    25. O	Seal Failure  CORRECT OP  Incorrect Operat O Inadeq O Other ber of employ ee  HER  Miscellaneous, d Unknown O Investigatio	PERAT  ion  uate Pro s involv  describe on Comp	ION ocedures ved who fa	O illed a	=> (  =-x  Inadequate  post-accid	O Nipples O Other O Gasket O Other Safety Practices dent test: drug te	O Valve Threads O O-Ring O Failure to Followest: ///	O Dresser Couplings O Seal/Pump Packing  W Procedures alcohol test
22. O  H7 - INC  23. O  a. Type  b. Numl  H8 - OT  24. O    25. O	Seal Failure  CORRECT OP  Incorrect Operat O Inadeq O Other ber of employ ee  HER  Miscellaneous, d Unknown O Investigatio	PERAT  ion  uate Pro s involv  describe on Comp	ION ocedures ved who fa	O illed a	=> (  =-x  Inadequate  post-accid	O Nipples O Other O Gasket O Other Safety Practices dent test: drug te	O Valve Threads O O-Ring O Failure to Followest: ///	O Dresser Couplings O Seal/Pump Packing  W Procedures alcohol test

#### ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

ON NOVEMBER 8M, 2005 AT APPROX. 9:30 A.M. CENTRAL STANDARD TIME, MPL&S WABASH 16& PRODUCTS PIPELINE WAS SHUTDOWN AFTER WE RECEIVED A CALL FROM A LANDOWNER REPORTING THE SMELL OF PRODUCT AROUND THE CREEK BANK NEAR THE WABASH LINE IN ST. ANNE, ILLINOIS. MPL IMMEDIATELY INITIATED LOCAL EMERGENCY RESPONSE ACTIVITIES. MPL RESPONSE PERSONNEL ON-SITE CONFIRMED A SLIGHT SHEEN ON THE SURFACE OF SPRING CREEK MOVING DOWNSTREAM (WEST) FOR APPROXIMATELY 1 TO 1.5 MILES. ON NOV 9, 2005, PIPELINE EXCAVATION BEGAN AND ON NOV 10, 2005 THE SOURCE OD THE RELEASE WAS IDENTIFIED AS THE WABASH 16; PRODUCTS PIPELINE WITH THE CHAMPAIGN TO GRIFFITH SEGMENT. THE PRODUCT HAD MIGRATED TO UNDERGROUND FROM THE SOURCE OF THE RELEASE APPROX. 150 FT INTO SPRING CREEK FROM THE BASE OF THE CREEK BANK. THE SOURCE OF THE RELEASE WAS REPAIRED WITH A TUPE ¿B¿ SLEEVE ON NOV 10, 2005. ON NOV 18, 2005 KIEFNER & ASSOC ADVISED THAT THEIR PRELIMINARY ANALYSIS INDICATED THE RELEASE WAS CAUSED BY COLD WELD OR LACK OF FUSION WITH NO SIGNS OF FATIGUE. THE JOINT OF PIPE THAT WAS REMOVED IS CURRENTLY UNDERGOING TESTING BY KOEFNER & ASSOC AND ANOTHER OUTSIDE COMPANU. MPL IS CURRENTLY OPERATING THE PIPELINE AT REDUCED RATES, WHICH WILL CONTINUE UNTIL THE FAILURE MECHANISM IS KNOWN AND THE REMEDIATION PLAN HAS BEE APPROVED BY THE CENTRAL REGION OFFICE OF PIEPL; INE SAFETY. AS OF JAN 3, 2006, MPL HAS RECEIVED AND REVIEWD REPORTS FROM OUTSIDE BENDORS STATING THE AUSE OF THE RELEASE TO THIS SECTION OF PIPELINE WAS DUE TO LACK OF FUSION OR A "COLE WELD". RELEASE ESTIMATE OF 52 BBLS WAS CALCULATED BY EFI GLOBAL AND WAS BASED ON THE TOTAL PETRO HYDOCARB ANALYSIS AND ASSOCIATED MASS BALANCE CONVERSION CALCULATION. KIEFNER & ASSOC CALCULATED THE ESTIMATED LEAK DURATION BY GRAPHING THE PIPELINES PRESSURE CYCLES, THE AMOUNT OF PRODUCT RELEASED AND THE LENGTH OF THE CRACK.



U.S. Department of Transportation Research and Special Programs Administration

# ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date <u>SEP 05.2006</u>

No. 20060251 -- 5563

Administration		(DOT Use Only)
INSTRUCTIONS	•	
Important: Please read the separate instructions for correquested and provide specific examples. If the Office Of Pipeline Safety Web Page at http://doi.org/10.1007/j.j.j.j.j.j.j.j.j.j.j.j.j.j.j.j.j.j.j.	you do not have a copy	
PART A GENERAL REPORT INFORMATION check:	Original Report	Supplemental Report
Degrator's OPS 5-digit Identification Number (if know)     Land Operator does not own the pipeline, enter Owner's OPS 5-digit Inc. Name of Operator ENTERPRISE PRODUCTS OPERATING LP	31618	
1 O 1 / 1 II AAAA OTTOTAN OTTOTAN		
e. Operator address HOUSTON HARRIS TX 77002  City, County, State and ZIP Code		
IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED AS REVISED IN CY 2001.		
2. Time and date of the accident	5. Losses (Estimated)	
/ <u>1900</u> / <u>/ 08 / / 16 / /2006 /</u>		sses reimbursed by operator:
hr. month day year	Public/private property	• •
3. Location of accident (If offshore, do not complete a through d See Part C.1)	Cost of emergency res	ponse phase \$ 5,000
	Cost of environmental	remediation \$ 61,000
a. Latitude: 38D09'38 Longitude: 97D55'58 (If not available, see instructions for how to provide specific location)	Other Costs	\$ <u>0</u>
b. HUTCHINSON RENO City and County or Parish	(describe)	
c. <u>KS 67501</u> State and Zip Code	Operator Losses:  Value of product lost	\$100
d. Mile post/valve station O or Survey Station no. (whichever gives more accurate location)	Value of operator prop Other Costs	\$ 13.000
14427+74	(describe) PERMA	NENT PIPE REPAIR
1. Telephone report	Total Costs:	\$ 79,100
6. Commodity Spilled ● Yes O No (If Yes, complete Parts a through c where applicable)		c. Estimated amount of commodity involved :
a. Name of commodity spilled ANHYDROUS AMMONIA     b. Classification of commodity spilled:		O Barrels Gallons (check only if spill is less than one barrel)
<ul> <li>HVLs/other flammable or toxic fluid which is a gas at ambient co</li> <li>CO<sub>2</sub> or other non-flammable, non-toxic fluid which is a gas at am</li> <li>Gasoline, diesel, fuel oil or other petroleum product which is a liqu</li> <li>Crude oil</li> </ul>	bient conditons	Amounts : Spilled : 100
		Recovered:
CAUSES FOR SMALL SPILLS ONLY (5 gallons to under 5 barre	e <u>/s)</u> (For large spills	[5 barrels or greater] see Part H)
O Corrosion O Natural Forces O Excavation Damage	O Other Ous	ide Force Damage
Materal and/or Weld Failures     C Equipment	O Incorrect 0	Operation O Other
PART B - PREPARER AND AUTHORIZED SIGNATURE		
JOHN S. STERRETT (type or print) Preparer's Name and Title	- PANELSIA	(713) 381-2493 Area Code and Telephone Number
JSTERRETT@EPROD.COM Preparer's E-mail Address		(713) 381-8790 Area Code and Facsimile Number
Authorized Signature (type or print) Name a	nd Title Date	Area Cod and Telephone Number

	Offshore: O Yes • No (comple d if offshore)
a. Line segment name or ID <b>SOUTH LEG NH3 LINE</b> b. Accident on Federal land other than Outer Continental	d. Area Block #
Shelf O Yes No	State_// or Outer Continental Shelf
c. Is pipeline interstate? • Yes O No	
2. Location of system involved (check all that apply)	a. Type of leak or rupture
Operator's Property	● Leak: ● Pinhole ○ Connection Failure (complete sec. H5)
	O Puncture, diameter (inches)
Describe HCA DRINKING WATER	O Rupture: O Circumf erential - Separation O Longitudinal - Tear/Crack, length (inches)
3. Part of system involved in accident	Propagation Length, total, both sides (feet)
O Above Ground Storage Tank	O Other
O Cavern or other below ground storage facility O Pump/meter station; terminal/tank farm piping and	O Other
O Pump/meter station; terminal/tank farm piping and equipment, including sumps	b. Type of block valve used for isolation of immediate section:
O Other Specify:	Upstream: Manual Automatic Remote Control
10 10 May 86	Check Valve
Onshore pipeline, including valve sites	Downstream: Manual Automatic Remote Control Check Valve
Offshore pipeline, including platforms	c. Length of segment isolated 48.294 ft
if failure occurred on <b>pipeline</b> , complete items a - g:	d. Distance between valves 48,294 ft
4. Failure occurred on	e. Is segment configured for internal inspection tools?● Yes ○ No
O Body of Pipe Pipe Seam O Scraper Trap O Pump O Sump O Joint	f. Had there been an in-line inspection device run at the point of
O Component O Valve O Metering Facility	failure? • Yes O No O Don't Know O Not Possible due to physical constraints in the system
O Repair Sleeve O Welded Fitting O Bolted Fitting O Girth Weld	g. If Yes, type of device run (check all that apply)
O Other (specify)	High Resolution Magnetic Flux tool Year run: 2004
	Low Resolution Magnetic Flux tool Year run:
Year the component that failed was installed: / 1968 /	UT tool Year r
Maximum operating pressure (MOP)     a. Estimated pressure at point and time of accident:	Geometry tool Year run:
900 PSIG	× Caliper tool Year run; 2004
b. MOP at time of accident:	Crack tool Year n
c. Did an overpressurization occur relating to the accident?	Hard Spot tool Year ru
O Yes • No	Other tool Year ru
PART D - MATERIAL SPECIFICATION	PART E - ENVIRONMENT
1. Nominal pipe size (NPS) <u>/ 8.63</u> / in.	1. Area of accident O In open ditch
2. Wall thickness	O Under pavement O Abov e ground
3. Specification API 5L SMYS / 46000 /	● Underground O Under water
4. Seam type LF-ERW	O Inside/under building O Other
5. valve type	
6. Manufactured by LONE STAR STEEL in year   1967	2. Depth of cover: 40 inches
PART F-CONSEQUENCES	
Consequences (check and complete all that apply)     a. Fatalities Injuries	c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
Number of operator employ ees: 0	e. Devacuation (general public only)
Contractor employees working for operator:00	Reason for Evacuation:
General public:0	O Precautionary by company
Totals:	O Evacuation required or initiated by public official
b. Was pipeline/segment shutdown due to leak? O Yes O No	f. Elapsed time until area was made safe:
If Yes, how long? days hours minutes	/ <u>0</u> / hr. <u>/0</u> / min.
a. Wildlife Impact: Fish/aquatic Yes Yes No	e. Water Contamination: O Yes O No (If Yes, provide the following)  Amount in water barrels
Bird O Yes ● No Terrestrial O Yes ● No	Ocean/Seawater O No O Yes
b. Soil Contamination Yes O No	Surface O No O Yes
If Yes, estimated number of cubic yards:	Groundwater O No O Yes
c. Long term impact assessment performed: ○ Yes ● No d. Anticipated remediation ● Yes ○ No	Drinking water O No O Yes (If Yes, check below.)
	O Private well O Public water intake

PART G. LEAK DETECTION INFORMATION
1. Computer based leak detection capability in place? ☐ Yes ■ No
2. Was the release intially detected by? (check one): O CPMSCADA-based system with leak detection
O Static shut-in test or other pressure or leak test
O Local operating personnel, procedures or equipment
Remote operating personnel, including controllers
O Air patrol or ground surveillance
A third party O Other (specify)
3. Estimated leak duration days hours
PART H - APPARENT CAUSE  Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.
H1 - CORROSION a. Pipe Coating b. Visual Examination c. Cause of Corrosion
1. O External Corrosion O Bare O Localized Pitting O Galvanic O Atmospheric O Stray Current O Microbiological
Other Other Cathodic Protection Disrupted
2. O Internal Corrosion Cracking O Stress Corrosion Cracking O Selective Seam Corrosion
(Complete items a - e
where applicable.)
d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?  O No O Yes, Year Protection Started: /
e. Was pipe previously damaged in the area of corrosion? O No O Yes => Estimated time prior to accident: // years // months Unknown
H2 - NATURAL FORCES
3. O Earth Movement =>O Earthquake O Subsidence O Landslide O Other
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other
7. O High Winds
H3 - EXCAVATION DAMAGE
8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party (complete a-f) a. Excavator group
General Public O Government O Excavator other than Operator/subcontractor
b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Raildroad
Other liquid or gas transmission pipeline-operator or their contractor
O Nautical Operations O Other
c. Excavation was: Open Trench Osub-strata (boring, directional drilling, etc)
d. Excavation was an ongoing activity (Month or longer) ○ Yes ● No If Yes, Date of last contact / /
e. Did operator get prior notification of excavation activity?  O Yes: Date received: / / mo. / / day / / yr.  O No
Notification received from: O One Call System O Excavator O Contractor O Landowner
f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv) i. Temporary markings: O Flags O Stakes O Paint ii. Permanent markings: O Yes O No iii. Marks were (check one): O Accurate O Not Accurate iv. Were marks made within required time? O Yes O No
H4 - OTHER OUTSIDE FORCE DAMAGE
10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

88 -4 1		LURES			
Material	_		_		_
14. O Body of Pipe	=>O Dent	O Gouge	O Bend	O Arc Burn	O Other
15. O Component	=>O Valve	O Fitting	O Vessel	O Extruded Outlet	O Other
16. O Joint	=O Gasket	O O-Ring	O Threads		O Other
Weld					
17. O Butt	=\$O Pipe	O Fabricati	on		O Other
18. O Fillet	=Ø Branch	O Hot Tap	O Fitting	O Repair Sleeve	O Other
19. Pipe Seam	=> LF ERW		O Seamless	O Flash Weld	
		O saw	•		O Other
Complete a-g if yo	u indicate any	cause in par	t H5.		
a. Type of failure:					_
O Construction O Material Defe		Poor Workman	ship O Proced	dure not followed (	Poor Construction Procedures
		ustained in tran	sportation to the c	construction or fabricati	on site? O Yes 🔎 No
				Yes, complete d	
d. Date of test:		-	/ mo. <u>/ 1</u>		
e. Test medium:	Water C	Inert Gas	O Other		The second secon
f. Time held at tes	•				
g. Estimated test p	oressure at point o	f accident:	1465	PSIG	
H6 - EQUIPMENT				_	
20. O Malfunction of	Control/Relief Equ	ipment =>		O Instrumentation	
			_		O Power failure
				O Valve Threads	O Barrage Countings
21. O Threads Strippe	ed Broken Pipe Co	upling =>	_ * * *		O Diessel Couplings
21. O Threads Strippe	ed Broken Pipe Co		O Other	O o-Ring	O Seal/Pump Packing
22. O Seal Failure			O Other	O o-Ring	
22. O Seal Failure	PERATION		O Other	O o-Ring	O Seal/Pump Packing
22. O Seal Failure  H7 - INCORRECT O  23. O Incorrect Opera	PERATION ation	=)	O Other O Gasket O Other	O O-Ring	O Seal/Pump Packing
22. O Seal Failure  H7 - INCORRECT O  23. O Incorrect Opera a. Type O Inade	PERATION ation quate Procedures	=: O Inadequa	O Other O Gasket O Other te Safety Practice	O O-Ring es O Failure to Follo	O Seal/Pump Packing
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ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT
A THIRD PARTY DISCOVERED THIS LEAK ON AUGUST 16, 2006.
AFTER DISCOVERY, THE PIPELINE WAS SHUTDOWN ON AUGUST 16, 2006 FOR REPAIR. A PLIDCO SPLIT SLEEVE RATED FOR 1500 PSIG WAS INSTALLED ON AUGUST 17 AS A TEMPORARY REPAIR, AND THE LINE WAS PLACED BACK IN SERVICE ON AUGUST 17, 2006.
AFTER VISUAL EXAMINATION AND FROM PAST STUDIES ON THIS LINE, THE PINHOLE LEAK IN THIS PARTICULAR LONGITUDINAL SEAM WAS CONCLUDED TO BE MOST LIKELY CAUSED BY A PIPE MANUFACTURING DEFECT.
THE PLIDCO SLEEVE WAS WELDED IN AS THE PERMANENT REPAIR.
THE FILING ON MAY 2, 2007 WAS MADE AS A SUPPLEMENTAL FILING BECAUSE ONGOING ENVIRONMENTAL REMEDIATION WAS NOT ADEQUATELY DELINEATED AT THAT TIME.

NOTICE: This report is required by 49 CFR Part 195. Failure to report can result in a civil penalty not to exceed \$25,000 for each violation for each day that such violation persists except that the maximum civil penalty shall not exceed \$5000,000 as provided in 49 USC 60122

Form Approved OMB No. 2137-0047



U.S. Department of Transportaion Research and Special Programs Administration

#### ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date APR 17,2007

No. 20070105 -- 5480 (DOT Use Only)

INSTRUCTIONS		
Important: Please read the separate instructions for con requested and provide specific examples. If the Office Of Pipeline Safety Web Page at http	you do not have a copy	
######################################		Supplemental Report
1. a. Operator's OPS 5-digit Identification Number (if know) 2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit I  c. Name of Operator ENTERPRISE PRODUCTS OPERATING LP  d. Operator street address 1100 LOUISIANA STREET  e. Operator address HOUSTON HARRIS TX 77002  City, County, State and ZIP Code  IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS  PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED IAS REVISED IN CY 2001.	31618 / / dentification Number (if known of the known of	JT IS LESS THAN 5 BARRELS, COMPLETE THIS
2. Time and date of the accident    1150     03     19     2007     hr. month day year  3. Location of accident (If offshore, do not complete a through d See Part C.1)  a. Latitude: 37.2176685 Longitude: -99.748673 (If not available, see instructions for how to provide specific location)	5. Losses (Estimated)  Public/Community Los  Public/priv ate property  Cost of emergency res  Cost of environmental of their Costs	ponse phase \$0
b. ASHLAND CLARK City and County or Parish c. KS 67831	(describe)  Operator Losses:  Value of product lost	\$10
State and Zip Code  d. Mile post/valve station O or Survey Station no.  (whichever gives more accurate location)  8031+92	Value of operator prop Other Costs (describe) <b>PIPE RE</b>	\$4,000
4. Telephone report    1 829638	Total Costs:	\$54,010
6. Commodity Spilled Yes O No (If Yes, complete Parts a through c where applicable)		c. Estimated amount of commodity involved :
<ul> <li>a. Name of commodity spilled ANHYDROUS AMMONIA</li> <li>b. Classification of commodity spilled: <ul> <li>HVLs/other flammable or toxic fluid which is a gas at ambient co</li> <li>CO<sub>2</sub> or other non-flammable, non-toxic fluid which is a gas at am</li> <li>O Gasoline, diesel, fuel oil or other petroleum product which is a lique</li> <li>O Crude oil</li> </ul> </li> </ul>	bient conditons	O Barrels Gallons (check only if spill is less than one barrel)  Amounts: Spilled: 10  Recovered:
CAUSES FOR SMALL SPILLS ONLY (5 gallons to under 5 barre	e/s) : (For large spills	5 barrels or greater] see Part H)
Corrosion		ide Force Damage
PART B - PREPARER AND AUTHORIZED SIGNATURE		
JOHN S. STERRETT (type or print) Preparer's Name and Title		(713) 381-2493 Area Code and Telephone Number
JSTERRETT@EPROD.COM Preparer's E-mail Address		(713) 381-8790 Area Code and Facsimile Number
Authorized Signature (type or print) Name and	nd Title Date	Area Cod and Telephone Number

Additional location information	Offshore: O Yes • No (comple d if offshore)
a. Line segment name or ID <u>SOUTH LEG NH3 LINE</u> b. Accident o <u>n</u> Federal la <u>n</u> d other than Outer Continental	d. Area Block #
Shelf O Yes No	State / / or Outer Continental Shelf
c. Is pipeline interstate? ● Yes O No	State
2. Location of system involved (check all that apply)	a. Type of leak or rupture
Operator's Property	● Leak: Pinhole O Connection Failure (complete sec. H5)
Pipeline Right of Way     High Consequence Area (HCA)?	O Puncture, diameter (inches)
Describe HCA	O Rupture: O Circumferential - Separation O Longitudinal - Tear/Crack, length (inches)
3. Part of system involved in accident	Propagation Length, total, both sides (feet)
O Above Ground Storage Tank	O N/A
O Caviern or other below ground storage facility	O Other
O Pump/meter station; terminal/tank farm piping and equipment, including sumps	b. Type of block valve used for isolation of immediate section:
O Other Specify:	Upstream:   Manual Automatic Remote Control
	Check Valve
Onshore pipeline, including valve sites	Downstream: ☐ Manual ☐ Automatic 🗷 Remote Control
Offshore pipeline, including platforms	Check Valve c. Length of segment isolated <b>31,475</b> ft
if failure occurred on <b>pipeline</b> , complete items a - g:	d. Distance between valves 31,475 ft
4. Failure occurred on	e. Is segment configured for internal inspection tools?● Yes ○ No
O Body of Pipe O Pipe Seam O Scraper Trap	· · · · · · · · · · · · · · · · · · ·
O Pump O Sump O Joint O Component O Valve O Metering Facility	f. Had there been an in-line inspection device run at the point of failure? Yes O No O Don't Know
O Repair Sleeve O Welded Fitting O Bolted Fitting Ó Girth Weld	O Not Possible due to physical constraints in the system
O Other (specify)	g. If Yes, type of device run (check all that apply)
Other (specify)	High Resolution Magnetic Flux tool Year run:
Year the component that failed was installed: / 1968 /	Low Resolution Magnetic Flux tool Year run: 2007
5. Maximum operating pressure (MOP)	UT tool Year r
a. Estimated pressure at point and time of accident:     320 PS/G	Geometry tool Year run: 2006
b. MOP at time of accident:	Caliper tool Year run:
	☐ Crack tool Year n  ☐ Hard Spot tool Year ru
O Yes • No	Hard Spot tool Year ru
PART D - MATERIAL SPECIFICATION	PART E-ENVIRONMENT
1. Nominal pipe size (NPS) / 6.63 / in.	- The state of the
2. Wall thickness16 in.	1. Area of accident O In open ditch O Under payement O Above ground
3. Specification API-5L SMYS <u>I</u> 46000 I	Underground     Under water
4. Seam type LF ERW	O Inside/under building O Other
5. valve type	O fiside/under building O Other
6. Manufactured by LONE STAR STEEL in year I 1968 I	2. Depth of cover: 42 inches
PART F - CONSEQUENCES	
1. Consequences (check and complete all that apply)	c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
a. Fatalities Injuries  Number of operator employ ees: 0	e. Evacuation (general public only)
Contractor employees working for operator:	Reason for Evacuation:
General public:	O Precautionary by company
Totals: 0 0	O Evacuation required or initiated by public official
	f. Elapsed time until area was made safe:
If Yes, how long? days hours minutes	/ <u>0</u> / hr. <u>/20</u> / min.
	e. Water Contamination: O Yes ● No (If Yes, provide the following)
Bird Q Yes • No	Amount in water barrels
Terrestrial O Yes ● No b. Soil Contamination ● Yes O No	Ocean/Seawater O No O Yes Surface O No O Yes
If Yes, estimated number of cubic yards: 500	Groundwater O No O Yes
c. Long term impact assessment performed: ○ Yes ● No	
d. Anticipated remediation   Yes O No	Drinking water O No O Yes (If Yes, check below.)  Private well O Public water intake
If Yes, Check all that apply: Surface water Groundwater	Soil Vegetation Wildlife

PARE GELEAN DEFECT	<u> </u>
Computer based leak detection	
2. Was the release intially de	
	O Static shut-in test or other pressure or leak test
	O Local operating personnel, procedures or equipment
	O Remote operating personnel, including controllers
	O Air patro! or ground surveillance
12 -t- franchion o	A third party     Other (specify)
Estimated leak duration d	lays 1 hours 0 Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary
PART H - APPARENT CA	use cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.
H1 - CORROSION	a. Pipe Coating b. Visual Examination c. Cause of Corrosion
External Corrosion	O Bare
2. O Internal Corrosion	O Stress Corrosion Cracking O Selective Seam Corrosion
(Complete items a - e	O Other
where applicable.)	The state of the s
	d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?  O No Yes, Year Protection Started: / 1968 /
	e. Was pipe previously damaged in the area of corrosion?  No O Yes => Estimated time prior to accident: // years // months Unknown
H2 - NATURAL FORCES	
3. O Earth Movement	=>O Earthquake O Subsidence O Landslide O Other
_	-20 Earthquake 0 Substitution 0 Earthoride
4. O Lightning	
5. O Heavy Rains/Floods	
6. O Temperature	=> O Thermal stress O Frost heave O Frozen components O Other
7. O High Winds	
H3 - EXCAVATION DAMAG	3E
8. O Operator Excavation D	Damage (including their contractors/Not Third Party)
9. O Third Party (complete	
a. Excavator group O Gene	eral Public O Government O Excavator other than Operator/subcontractor
	d Work O Pipeline O Water O Electric O Sewer O Phone/Cable
	lowner-not farming related O Farming O Raildroad
	er liquid or gas transmission pipeline-operator or their contractor
	ical Operations O Other
c. Excavation was:	O Open Trench O Sub-strata (boring, directional drilling, etc)
	an ongoing activity (Month or longer) O Yes • No If Yes, Date of last contact / /
	prior notification of excavation activity?
O Yes; Date re	eceived:/ mo/ day/ yr. O No
	sived from: O One Call System O Excavator O Contractor O Landowner
ii. Permanent iii. Marks were	ked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv) markings: O Flags O Stakes O Paint markings: O Yes O No (check one): O Accurate O Not Accurate s made within required time? O Yes O No
H4 - OTHER OUTSIDE FO	
10. O Fire/Explosion as pri	imary cause of failure => Fire/Explosion cause: O Man Made O Natural
_	rehicle not relating to excavation activity damaging pipe
12. O Rupture of Previous	ly Damaged Pipe
13. O Vandalism	

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1			_UR		÷		
Material  14. O Body of Pipe	=>O	Dent	0	Gouge	O Bend	O Arc Burn	O Other
,		٠		Ū			
15. O Component	=>U	Valve	O	Fitting	O Vessel	O Extruded Outlet	O Other
16. O Joint	<b>Q</b> :=	Gasket	0	O-Ring	O Threads		O Other
Weld 17. ○ Butt	=:O	Pipe	0	Fabrication	١		O Other
18. O Fillet	<b>-</b> \$O	Branch	0	Hot Tap	O Fitting	O Repair Sleeve	O Other
19. O Pipe Seam		LF ERW			O Seamless	OFlash Weld	
	0	HF ERW	0	SAW	O Spiral		O Other
Complete a-g if you	ı indic	ate any c	aus	e in part	H5		·
<ul><li>a. Ty pe of failure:</li><li>O Construction D</li><li>Material Defer</li></ul>		⇒ O P	oor \	Workmansh	nip O Procedi	ure not followed	O Poor Construction Procedures
		đamage su:	stain	ed in transp	ortation to the co	onstruction or fabricat	ion site? O Yes O No
						O Yes, complete	
					_/ mo/		
e. Test medium:	O Wate	er O	Iner	rt Gas C			
f. Time held at test							
g. Estimated test pr	ressure	at point of	acci	dent:	P	rsig	
<u> </u>							
H6 - EQUIPMENT							
H6 - EQUIPMENT  20. Malfunction of C	Control/F	Relief Equi	pmer	C	Block valve		O SCADA O Communications O Power failure
20. O Malfunction of C				C	Dilock valve	O Relief valve	O Power failure
				=> C	Discount Block valve Other Nipples	O Relief valve O Valve Threads	
20. O Malfunction of C				=> C C C	D Block valve Other Nipples Other Gasket	O Relief valve O Valve Threads	O Power failure O Dresser Couplings
20. O Malfunction of C	d Broker	n Pipe Coul		=> C C C	D Block valve Other Nipples Other	O Relief valve O Valve Threads	O Power failure O Dresser Couplings
20. O Malfunction of Control of C	d Broker	n Pipe Coul		=> C C C	D Block valve Other Nipples Other Gasket	O Relief valve O Valve Threads	O Power failure O Dresser Couplings
20. O Malfunction of Control of C	d Broker PERATI	n Pipe Coul	pling	C == C C C C C C C C C C C C C C C C C	D Block valve Other Nipples Other Gasket Other	O Relief valve O Valve Threads O O-Ring	O Power failure O Dresser Couplings O Seal/Pump Packing
20. O Malfunction of Control of C	d Broker  PERATI  tion  juate Pro	n Pipe Coul	pling	=> CC	D Block valve Other Nipples Other Gasket Other Safety Practices	O Relief valve O Valve Threads O O-Ring	O Power failure O Dresser Couplings O Seal/Pump Packing
20. O Malfunction of Control of C	d Broker PERATI tion luate Pro	ON	pling O i	=> C => C =>C	O Block valve Other Other Other Other Other Other Other Safety Practices	O Relief valve O Valve Threads O O-Ring  O Failure to Folk	O Power failure O Dresser Couplings O Seal/Pump Packing
20. O Malfunction of Control of C	d Broker PERATI tion luate Pro	ON	pling O i	=> C => C =>C	O Block valve Other Other Other Other Other Other Other Safety Practices	O Relief valve O Valve Threads O O-Ring  O Failure to Folk	O Power failure O Dresser Couplings O Seal/Pump Packing
20. O Malfunction of Co.  21. O Threads Stripped  22. O Seal Failure  H7 - INCORRECT OP  23. O Incorrect Operat a. Type O Inadequ O Other b. Number of employee	d Broker  PERATI  tion  juate Pro	ON Ocedures	O i	=> CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	D Block valve Other D Nipples Other Gasket Other Safety Practices ent test: drug test	O Relief valve O Valve Threads O O-Ring  S O Failure to Folk	O Power failure O Dresser Couplings O Seal/Pump Packing  ow Procedures alcohol test
20. O Malfunction of Co.  21. O Threads Stripped  22. O Seal Failure  H7 - INCORRECT OP  23. O Incorrect Operat a. Type O Inadeq O Other b. Number of employee  H8 - OTHER  24. O Miscellaneous, d  25. O Unknown	d Broker  PERATI  tion  juate Pro  es involv	ION  Decedures  Ted who fail	O i	=> CC =>CC CC	D Block valve Other Other Other Other Other Other Sasket Other Safety Practices ent test: drug tes	O Relief valve O Valve Threads O O-Ring  o O Failure to Folk	O Power failure O Dresser Couplings O Seal/Pump Packing  ow Procedures alcohol test
20. O Malfunction of Co.  21. O Threads Stripped  22. O Seal Failure  H7 - INCORRECT OP  23. O Incorrect Operat a. Type O Inadeq O Other b. Number of employee  H8 - OTHER  24. O Miscellaneous, d  25. O Unknown O Investigation	d Broker  PERATI  tion  juate Pro  es involv  describe	ION  cedures ed who fai	O i	=> CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	D Block valve O Other D Nipples O Other D Gasket O Other Safety Practices ent test: drug tests	O Relief valve O Valve Threads O O-Ring  o Failure to Folks st:	O Power failure O Dresser Couplings O Seal/Pump Packing  ow Procedures alcohol test
20. O Malfunction of C  21. O Threads Stripped  22. O Seal Failure  H7 - INCORRECT OP  23. O Incorrect Operat a. Type O Inadequ O Other b. Number of employee  H8 - OTHER  24. O Miscellaneous, d 25. O Unknown O Investigation	d Broker  PERATI  tion  uate Pro  s involv  describe  on Comp	ION  cedures  ed who fai	O iiiled a	=> C => C C =>C C Inadequate a post-accide	D Block valve O Other D Nipples Other D Gasket Other Safety Practices ent test: drug testing the stigation (Sub minus) CONTRIBUT	O Relief valve O Valve Threads O O-Ring  S O Failure to Folk st: //// t a supplemental repo	O Power failure  O Dresser Couplings  O Seal/Pump Packing  ow Procedures  alcohol test II  ort when investigation is complete)  (Attach additional sheets as necessary)
20. O Malfunction of C  21. O Threads Stripped  22. O Seal Failure  H7 - INCORRECT OP  23. O Incorrect Operat a. Type O Inadeq O Other b. Number of employee  H8 - OTHER  24. O Miscellaneous, d  25. O Unknown O Investigation  PART NARRATIVE  A CONTRACTOR WHILE  PERSONNEL REDUCED T  PLACED A TYPE B CLAM  CLAMP WAS INSTALLED	d Broker  PERATI  tion  Juste Pro  Jes involv  Jes involv  Jes Cribe  E EXCAN  THE LIN  THE POVEI  J, THE P	ION  Decedures  Ted who fair  Dete O  RIPTION O  VATING A  WE PRESSURE  PRESSURE	O ided a Still OF I	Inadequate  Under InvestaCTORS  I ANOMAL  EXCAVATI THE PINHO S RAISED I	D Block valve O Other D Nipples O Other D Gasket O Other Safety Practices ent test: drug test estigation (Sub min SCONTRIBUT Y, SMELLED AN ED THE PIPE, R DLE STOPPED L BACK TO NORM	O Relief valve O Valve Threads O O-Ring  Failure to Follo  St: / /  t a supplemental repo  ING TO THE EVEL  MMONIA AND CALL  EMOVED THE COA'  LEAKING WHEN THI  IAL OPERATING PR	O Power failure  O Dresser Couplings  O Seal/Pump Packing  ow Procedures  alcohol test
20. O Malfunction of C  21. O Threads Stripped  22. O Seal Failure  H7 - INCORRECT OP  23. O Incorrect Operat a. Type O Inadeq O Other b. Number of employee  H8 - OTHER  24. O Miscellaneous, d  25. O Unknown O Investigation  PART NARRATIVE  A CONTRACTOR WHILE  PERSONNEL REDUCED T  PLACED A TYPE B CLAM	d Broker  PERATI  tion  Juste Pro  Jes involv  Jes involv  Jes Cribe  E EXCAN  THE LIN  THE POVEI  J, THE P	ION  Decedures  Ted who fair  Dete O  RIPTION O  VATING A  WE PRESSURE  PRESSURE	O ided a Still OF I	Inadequate  Under InvestaCTORS  I ANOMAL  EXCAVATI THE PINHO S RAISED I	D Block valve O Other D Nipples O Other D Gasket O Other Safety Practices ent test: drug test estigation (Sub min SCONTRIBUT Y, SMELLED AN ED THE PIPE, R DLE STOPPED L BACK TO NORM	O Relief valve O Valve Threads O O-Ring  Failure to Follo  St: / /  t a supplemental repo  ING TO THE EVEL  MMONIA AND CALL  EMOVED THE COA'  LEAKING WHEN THI  IAL OPERATING PR	O Power failure  O Dresser Couplings  O Seal/Pump Packing  ow Procedures  alcohol test



U.S. Department of Transportaion Research and Special Programs Administration

#### ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JUN 20,2005

No. <u>20050177 - 4181</u> (DOT Use Only)

INSTRUCTIONS					
Important: Please read the separate instructions for correquested and provide specific examples. If	you do not have a copy				7
the Office Of Pipeline Safety Web Page at htt	p://ops.dot.gov				
PART A GENERAL REPORT INFORMATION check:	Original Report 🗵	Supplemental	Report *	Final Report	
1. a. Operator's OPS 5-digit Identification Number (if know)     2. b. If Operator does not own the pipeline, enter Owner's OPS 5-digit	31618 /				
c. Name of Operator ENTERPRISE PRODUCTS OPERATING L.P.					
d. Operator street address 2727 NORTH LOOP WEST, PO BOX 43		•	•		
e. Operator address HOUSTON HARRIS TX 77210-4324 City, County, State and ZIP Code				_	
IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED AS REVISED IN CY 2001.					
2. Time and date of the accident	E Langua (Patimated)				
/ <u>1400</u> / <u>[ 06                                  </u>	5. Losses (Estimated) Public/Community Los	ses reimbursed	by operator:		
3. Location of accident	Public/private property	damage	\$	500	
(If offshore, do not complete a through d See Part C.1)	Cost of emergency res	ponse phase	\$	0	
	Cost of environmental		\$	0	
a. Latitude: 42D12'35" Longitude: 90D49'22" (If not available, see instructions for how to provide specific location)	Other Costs		\$		
b. BERNARD JACKSON	(describe)				
City and County or Parish	Operator Losses:				
c. IA 52032	- <b>.</b>		<b>.</b>	5.400	
State and Zip Code 526.49	Value of product lost		<b>3</b>	<u>5,100</u>	
d. Mile post/valve station or Survey Station no.	Value of operator prop	erty damage	\$		
(whichever gives more accurate location)	Other Costs		.\$	48,100	
526.49 /// 27798+75	(describe) REPAIR	COSTS			
4. Telephone report	Total Costs:		\$	56,200	
1         760659         I         I         06         I         I         01         I         2005         I           NRC Report Number         month         day         year					
6. Commodity Spilled ■ Yes O No (If Yes, complete Parts a through c where applicable)		c. Estimated am involved :	ount of comr	nodity	
a. Name of commodity spilledPROPANE		Barrels			
<ul> <li>b. Classification of commodity spilled:</li> <li>HVLs/other flammable or toxic fluid which is a gas at ambient co</li> </ul>	nditions	O Gallons ( less than	check only if n one barrel)	-	
O CO <sub>2</sub> or other non-flammable, non-toxic fluid which is a gas at am Gasoline, diesel, fuel oil or other petroleum product which is a lique of Crude oil	bient conditons	Amounts : Spilled :	<u>81</u>		
Crade oil		Recovere	ed:		
CAUSES FOR SMALL SPILLS ONLY (5 gallons to under 5 barre	els): (For large spills	5 barrels or grea	ter] see Part	: H)	
O Corrosion O Natural Forces O Excavation Damage	O Other Ous	ide Force Damag	e		
O Materal and/or Weld Failures O Equipment	O Incorrect C	peration	0	Other	
PART B - PREPARER AND AUTHORIZED SIGNATURE					_
JOHN S. STERRETT (type or print) Preparer's Name and Title		<u>(713) 803-</u> Area Code	2493 and Telephone	Number	
JSTERRETT@EPROD.COM Preparer's E-mail Address		(713) 803- Area Code	8790 and Facsimile I	Number	
Authorized Signature (type or print) Name at	nd Title Date	Area Cod a	and Telephone N	Jumber	

	Offshore: O Yes • No (comple d if offshore)
a. Line segment name or ID <u>6 INCH BLUE EAST MAINLINE</u> b. Accident o <u>n</u> Federal la <u>n</u> d other than Outer Continental	d. Area Block #
Shelf O Yes No	State_// or Outer Continental Shelf
c. Is pipeline interstate? ● Yes O No	otate / O outer commenter onen
2. Location of system involved (check all that apply)	a. Type of leak or rupture
Operator's Property	Leak: Pinhole O Connection Failure (complete sec. H5)
Yipeline Right of Way   High Consequence Area (HCA)?	O Puncture, diameter (inches)
Describe HCA	O Rupture: O Circumferential - Separation O Longitudinal - Tear/Crack, length (inches)
3. Part of system involved in accident	Propagation Length, total, both sides (feet)
O Above Ground Storage Tank	O N/A
O Cavern or other below ground storage facility	O Other
O Pump/meter station; terminal/tank farm piping and	b. Type of block valve used for isolation of immediate section:
equipment, including sumps O Other Specify:	
Other Specify.	Upstream.
Onshore <b>pipeline</b> , including valve sites	Downstream: 💌 Manual 🗌 Automatic 🔲 Remote Control
Offshore pipeline, including platforms	Check Valve  c. Length of segment isolated 60,720 ft
if failure occurred on <b>pipeline</b> , complete items a - g:	
4. Failure occurred on	d. Distance between valves 60,720 ft
O Body of Pipe O Pipe Seam O Scraper Trap	e. Is segment configured for internal inspection tools? Yes O No
O Pump O Sump O Joint	f. Had there been an in-line inspection device run at the point of failure?    ✓ Yes O No O Don't Know
O Component O Valve O Metering Facility O Repair Sleeve O Welded Fitting O Bolted Fitting	O Not Possible due to physical constraints in the system
Girth Weld	g. If Yes, type of device run (check all that apply)
O Other (specify)	➤ High Resolution Magnetic Flux tool Year run:
	Low Resolution Magnetic Flux tool Year run:
Year the component that failed was installed: / 1960 /	UT tool Year r
Maximum operating pressure (MOP)     a. Estimated pressure at point and time of accident:	Geometry tool Year run:
PSIG	Caliper tool Year run: 2004
b. MOP at time of accident:  1.335 PSIG	Crack tool Year n
c. Did an overpressurization occur relating to the accident?	Hard Spot tool Year ru
O Yes ● No	Other tool Year n
PART D - MATERIAL SPECIFICATION	PART E - ENVIRONMENT
1. Nominal pipe size (NPS) / 6.63 / in.	
2. Wall thickness	
3. Specification API 5L - X46 SMYS / 46000 /	O Under pavement O Abov e ground Underground O Under water
4. Seam type LF-ERW	O Inside/under building O Other
5. valve type NA	O miside/under building O Other
6. Manufactured by LONE STAR STEEL in year / 1960 /	2. Depth of cover:30 inches
PART F- CONSEQUENCES	
1. Consequences (check and complete all that apply)	5 1 1 5 1 0 Y
a. Fatalities Injuries	c. Product ignited O Yes No d. Explosion O Yes No
Number of operator employees:  Contractor employees working for operator:  0 0 0	e. Evacuation (general public only)
Constitutionality	O Precautionary by company
: A SAN STERRESS AND A	O Evacuation required or initiated by public official
	f. Elapsed time until area was made safe:
F-F	/_12 / hr. / 0 / min.
If Yes, how long? 0 days 12 hours 0 minutes  2. Environmental Impact	
a. Wildlife Impact: Fish/aquatic Q Yes 👤 No	e. Water Contamination: O Yes ● No (If Yes, provide the following)  Amount in water barrels
Terrestrial _ O Yes ● No	Ocean/Seawater O No O Yes
b. Soil Contamination O Yes 🔸 No	Surface O No O Yes
If Yes, estimated number of cubic yards:	Groundwater O No O Yes
c. Long term impact assessment performed: ○ Yes ● No d. Anticipated remediation ○ Yes ● No	Drinking water O No O Yes (If Yes, check below.)
·	O Private well O Public water intake Soil Vegetation Wildlife

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PAKI G - LEAK DETECT	TON INFORMATION	
Computer based leak deter		
2. Was the release intially de		
	O Static shut-in test or other pressure or leak test	
	O Local operating personnel, procedures or equipment	
	O Remote operating personnel, including controllers	
	O Air patrol or ground surveillance	
	A third party  O Other (specify)	
3. Estimated leak duration	days 0 nours 3 Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary	
PART H - APPARENT CA	cause of the accident. Check one circle in each of the supplemental categories corresponding to the caus you indicate. Secc the instructions for guidance.	е
H1 - CORROSION	a. Pipe Coating b. Visual Examination c. Cause of Corrosion	
O External Corrosion	O Bare O Localized Pitting O Galvanic O Atmospheric Stray Current O Microbiological O Other Cathodic Protection Disrupted	
2. O Internal Corrosion	O Stress Corrosion Cracking O Selective Seam Corrosion	
(Complete items a - e	O Other	-
where applicable.)		
	d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?  O No O Yes, Year Protection Started:	
	e. Was pipe previously damaged in the area of corrosion? O No O Yes => Estimated time prior to accident: // years // months Unknown	
H2 - NATURAL FORCES		
3. O Earth Movement	=>O Earthquake O Subsidence O Landslide O Other	
4. O Lightning		
5. O Heavy Rains/Floods	=>O Washouts O Flotation O Mudslide O Scouring O Other	
6. O Temperature	=> O Thermal stress O Frost heave O Frozen components O Other	<del></del>
7. O High Winds		
H3 - EXCAVATION DAMA	GE	
9. O Third Party (complete		
b. Type: O Roa	ad Work O Pipeline O Water O Electric O Sewer O Phone/Cable	
O Land	downer-not farming related O Farming O Raildroad	
O Othe	er liquid or gas transmission pipeline-operator or their contractor	
O Nau	itical Operations O Other	
<ul><li>c. Excavation was:</li><li>d. Excavation was</li></ul>	O Open Trench O Sub-strata (boring, directional drilling, etc)  an ongoing activity (Month or longer) O Yes No If Yes, Date of last contact / /	
	prior notification of excavation activity?	
O Yes; Date r		
Notification rec	eived from: O One Call System O Excavator O Contractor O Landowner	
ii. Permanent iii Marks were	rked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv) markings: O Flags O Stakes O Paint markings: O Yes O No (check one): O Accurate O Not Accurate ks made within required time? O Yes O No	
H4 - OTHER OUTSIDE FO	ORCE DAMAGE	
•	rimary cause of failure => Fire/Explosion cause: O Man Made O Natural	
_	vehicle not relating to excavation activity damaging pipe	
12. O Rupture of Previous	sly Damaged Pipe	
13. O Vandalism		

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Material  14. O Body of Pipe						
1/1 ( ) Rody of Dina	_		_	•		
14. O body of ripe	=>0	Dent	O Gouge	O Bend	O <sub>Arc Burn</sub>	O Other
15. O Component	->0	Valve	O Fitting	O Vessei	OExtruded Outlet	O 04
15. Component	=>0	vaive	• Fitting	O Vessei	O Extruded Outlet	O Other
16. O Joint	-Ω	Gasket	O O-Ring	O Threads		O Other
10. 0 00111	-,0	Casket	O-King	j • Inteads		·
Weld						·
17. Dutt	=:	Pipe	O Fabric	ation		O Other
18 O Fillet	Q:=	Branch	O Hot Ta	p O Fitting	O Repair Steeve	O Other
19. O Pipe Seam	=>0	LF ERW	O DSAW	O Seamless	OFlash Weld	
	0	HE FRW	O SAW	O Spiral		O Other
			- 0/11/	- Ориш		- Carior
Complete a-g if yo	u indic	ate any c	ause in n	art H5		· · · · · · · · · · · · · · · · · · ·
a. Type of failure:	u maio	aro any o	adoo m p	arerio.		
	Defect	=> • F	oor Workma	anship O Proced	dure not followed	Poor Construction Procedures
O Material Defe						
b. Was failure due	to pipe o	damage su	stained in tr	ansportation to the o	construction or fabrication	on site? O Yes • No
					<ul> <li>Yes, complete d</li> </ul>	
d. Date of test:	_/_1	1960 /	yr. <u>/ 1</u>	/ mo/8	/ day	
e. Test medium:	Wate	er O	Inert Gas	O Other		
f. Time held at test	t pressur	e: <u>/ 8</u>	/ hr.			
g. Estimated test p	ressure	at point of	accident:	1669	PSIG	
H6 - EQUIPMENT			<del></del>			
20. O Malfunction of	Control/F	Relief Equi	pment =>	O Control valve	O Instrumentation	O SCADA O Communications
•			'			O Power failure
				O Other		
21. O Threads Strippe	ed Broker	n Pipe Cou	pling =>	O Nipples	O Valve Threads	O Dresser Couplings
				O Other		
22. O Seal Failure				Cooket		_
					U O-Ring	O Seal/Pump Packing
ZZ. Sour Fallaro					•	O Seal/Pump Packing
	PERAT	ION			O O-Ring	· · ·
H7 - INCORRECT O		ION			•	· · ·
H7 - INCORRECT O	tion		0	O Other		·
H7 - INCORRECT OF 23. O Incorrect Opera	ition quate Pro	ocedures	•	O Other	es O Failure to Follo	·
H7 - INCORRECT OF 23. O Incorrect Opera a. Type O Inadec O Other	ition quate Pro	ocedures		O Other	es O Failure to Follo	w Procedures
H7 - INCORRECT OF 23. O Incorrect Opera a. Type O Inadec O Other b. Number of employee	ition quate Pro	ocedures		O Other	es O Failure to Follo	·
H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inade O Other b. Number of employed H8 - OTHER	ition quate Pro ————es involv	ocedures red who fai	iled a post-a	O Other	es O Failure to Followest: 1	w Procedures
H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inade O Other b. Number of employed H8 - OTHER	ition quate Pro ————es involv	ocedures red who fai	iled a post-a	O Other	es O Failure to Followest: 1	w Procedures
H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other b. Number of employed  H8 - OTHER  24. O Miscellaneous, of	ation quate Pro es involv describe	ocedures red who fai	iled a post-a	O Otheruate Safety Practice	est: / / /	w Proceduresalcohol test _//
H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other b. Number of employed  H8 - OTHER  24. O Miscellaneous, of Investigation	tion quate Pro es involv  describe	ed who fai	iled a post-a	O Other	es O Failure to Followest: / / /	w Procedures
H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other b. Number of employed  H8 - OTHER  24. O Miscellaneous, of Investigation	tion quate Pro es involv  describe	ed who fai	iled a post-a	O Other	es O Failure to Followest: / / /	w Proceduresalcohol test _//
H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other b. Number of employed  H8 - OTHER  24. O Miscellaneous, of the original of t	tion quate Pro es involv  describe on Comp	ocedures  red who fail  e:  plete O  RIPTION	still Under	O Other uate Safety Practice accident test: drug to	es O Failure to Followest: / / / est: / / /	w Procedures
H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other b. Number of employed  H8 - OTHER  24. O Miscellaneous, of the original of t	tion quate Pro es involv  describe on Comp	ocedures  red who fail  e:  plete O  RIPTION	still Under	O Other uate Safety Practice accident test: drug to	es O Failure to Followest: / / / est: / / /	w Procedures  alcohol test / /  alcohol test / /  rt when investigation is complete)  [T (Attach additional sheets as necessary)
H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other b. Number of employed  H8 - OTHER  24. O Miscellaneous, of the original of t	tion quate Pro es involv  describe on Comp	ocedures  red who fail  e:  plete O  RIPTION	still Under	O Other uate Safety Practice accident test: drug to	es O Failure to Followest: / / / est: / / /	w Procedures  alcohol test / /  alcohol test / /  rt when investigation is complete)  [T (Attach additional sheets as necessary)
H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other b. Number of employed  H8 - OTHER  24. O Miscellaneous, of the original of t	tion quate Pro es involv  describe on Comp	ocedures  red who fail  e:  plete O  RIPTION	still Under	O Other uate Safety Practice accident test: drug to	es O Failure to Followest: / / / est: / / /	w Procedures  alcohol test / /  alcohol test / /  rt when investigation is complete)  [T (Attach additional sheets as necessary)
H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other b. Number of employed  H8 - OTHER  24. O Miscellaneous, of the original of t	tion quate Pro es involv  describe on Comp	ocedures  red who fail  e:  plete O  RIPTION	still Under	O Other uate Safety Practice accident test: drug to	es O Failure to Followest: / / / est: / / /	w Procedures  alcohol test / /  alcohol test / /  rt when investigation is complete)  [T (Attach additional sheets as necessary)

#### ATTACHMENT PART I - NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

THIS LEAK WAS DISCOVERED IN A GIRTH WELD. REPAIR MADE USING A FULL ENCIRCLEMENT BOLT-ON SLEEVE. THE VOLUME REPORTED INCLUDES THE BLOW DOWN VOLUME FOR REMOVING A SEGMENT OF PIPE PURSUANT TO AN INTEGRITY MANAGEMENT ASSESSMENT THAT WAS SCHEDULED SOON AFTER THE REPAIR OF THE LEAK. DETAILS: ON MAY 22, 2005, A LAND OWNER (TOM MARTIN) CALLED IN A DEAD SPOT IN HIS FIELD AT 19:00. THE AREA FIELD TECH DARIN SHULISTA CALLED DAVE ANDERSON, AREA COM, AT 19:30 TO DISCUSS THE LEAK ISSUE WITH THE AREA SUPERVISOR, TIM SCHUTT. DAVE WENT TO LEAK SITE WITH TIM AND DARIN AND HAND DUG TO WITHIN 12" OF LINE AND TESTED WITH A LEL METER AND PICKED UP LESS THAN 10% LEL. OPERATIONS CONTROL WAS NOTIFIED AND THEY BLOCKED IN THE LINE SECTION. ON MAY 23, 2005, A CONTRACTOR EXCAVATED THE SITE AND DISCOVERED A LEAKING GIRTH WELD AT STATION # 27798+75. THE REPAIR WAS COMPLETED USING A 6" BOLT-ON PLIDCO SLEEVE. OPERATIONS CONTROL THEN PLACED THE LINE BACK IN NORMAL OPERATIONS. MAY 26, 2005, 100' OF LINE SECTION WAS EXCAVATED TO CUTOUT THE REPAIRED SECTION. A STOPPLE SITE WAS EXCAVATED AT STATION # 27800+82, MAY 31, 2005, THE CONTRACTOR RECEIVED THE PIPE MATERIALS, WELDED UP AND HYDROTESTED THE REPLACEMENT SECTION, AND INSTALLED A 6" 900 ANSI STOPPLE FITTING WITH 2" TOR FITTING. JUNE 1, 2005, THE CONTRACTOR TAPPED AND SET STOPPLE. OPERATIONS EVACUATED 2348' OF 6" LINE WITH A VOLUME OF 81 BARRELS. JUNE 2, 2005, OPERATIONS COMPLETED EVACUATION OF LINE WITH NITROGEN, REMOVED REPAIRED SECTION OF PIPE, INSTALLED NEW REPLACEMENT SECTION. SYSTEM WAS PURGED AND STOPPLE REMOVED COMPLETING ALL PIPING WORK. JUNE 3, 2005, CONTRACTOR COATED ALL PIPE AND FITTINGS, BACK FILLED AND CLEANED SITE. JUNE 13, 2005, THE CUTOUT PIPE WAS SUBMITTED TO KIEFNER & ASSOCIATES, INC. FOR FAILURE ANALYSIS.

THE FINAL KIEFNER & ASSOCIATES REPORT CONCLUDED THAT THE LEAK WAS THE RESULT OF AN ORIGINAL CONSTRUCTION GIRTH WELD DEFECT KNOWN AS "BURNTHROUGH".



U.S. Department of Transportation Research and Special Programs Administration

# ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date JAN 28,2008

No. 20080019 - 6726 (DOT Use Only)

INSTRUCTIONS	···	
Important: Please read the separate instructions for co.	mpletina this form befo	re you begin. They clarify the information
requested and provide specific examples. If		
the Office Of Pipeline Safety Web Page at htt	p://ops.dot.gov	_
PART A - GENERAL REPORT INFORMATION check:	☑ Original Report 🔲	Supplemental Report   Final Report
<ol> <li>a. Operator's OPS 5-digit Identification Number (if know)</li> <li>b. If Operator does not own the pipeline, enter Owner's OPS 5-digit</li> </ol>	31618 /	
c. Name of Operator ENTERPRISE PRODUCTS OPERATING LLC	•	
d. Operator street address 1100 LOUISIANA STREET		
e. Operator address HOUSTON HARRIS TX 77002		·
City, County, State and ZIP Code		- Ala
IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED AS REVISED IN CY 2001.		
2. Time and date of the accident	5. Losses (Estimated)	
/ <u>2115</u> // <u>12</u> // <u>30</u> // <u>2007</u> /	1	sses reimbursed by operator:
hr. month day year	Public/private property	
3. Location of accident (If offshore, do not complete a through d See Part C.1)	Cost of emergency res	1
(n ononors, as not semplote a unsagn a cool art of n	Cost of environmental	
a. Latitude: 42D26'19.1" Longitude: -90D35'53.1"	Other Costs	\$ 0
(If not available, see instructions for how to provide specific location)	(describe)	<b>*</b>
b. <u>DUBUQUE</u> City and County or Parish	(4004:120)	
•	Operator Losses:	
c. <u>IA 52003</u> State and Zip Code	Value of product lost	<b>\$127,000</b>
The state of the s	Value of operator prop	perty damage \$0
d. Mile post/valve station O or Survey Station no. (whichever gives more accurate location)	Other Costs	\$ <u>78,200</u>
28854+39	(describe) REPAIR	COSTS
4. Telephone report	Total Costs:	\$ 206,600
<u>/ 858466 ј ј 12 ј 30 ј 2007 ј</u> NRC Report Number month day year		<del></del>
6. Commodity Spilled		c. Estimated amount of commodity involved :
a. Name of commodity spilledPROPANE		Barrels
b. Classification of commodity spilled:	1414	O Gallons (check only if spill is less than one barrel)
HVLs/other flammable or toxic fluid which is a gas at ambient color CO <sub>2</sub> or other non-flammable, non-toxic fluid which is a gas at am	nations bient conditons	·
O Gasoline, diesel, fuel oil or other petroleum product which is a liqu O Crude oil		Amounts : Spilled : <u>100</u>
		Recovered:
CAUSES FOR SMALL SPILLS ONLY (5 gallons to under 5 barre	is): (For large spills [	5 barrels or greater] see Part H)
O Corrosion O Natural Forces O Excavation Damage	O Other Ousi	ide Force Damage
O Materal and/or Weld Failures O Equipment	O Incorrect O	peration Other
PART B - PREPARER AND AUTHORIZED SIGNATURE	<del>.</del>	
JOHN S, STERRETT		(713) 381-2493
(type or print) Preparer's Name and Title	<u>.</u>	Area Code and Telephone Number
JSTERRETT@EPROD.COM		(713) 381-8790
Preparer's E-mail Address		Area Code and Facsimile Number
A.41	1 Tal	
Authorized Signature (ty pe or print) Name an	d Title Date	Area Cod and Telephone Number

Sincipul Allenia Antoni delinia Alemania della d	_
Additional location information     a. Line segment name or IDEAST LEG BLUE LINE	Offshore: O Yes 🔎 No (comple d if offshore)
b. Accident on Federal land other than Outer Continental	d. Area Block #
Shelf O Yes No	State_// or Outer Continental Shelf
c. Is pipeline interstate? Yes O No	
Location of system involved (check all that apply)	a. Type of leak or rupture
Operator's Property    Y   Pineline Right of Way	O Leak: O Pinhole O Connection Failure (complete sec. H5) O Puncture, diameter (inches)
➤ High Consequence Area (HCA)?	O Rupture: O Circumferential - Separation
Describe HCA ECOLOGICAL	O Longitudinal - Tear/Crack, length (inches)
3. Part of system involved in accident	Propagation Length, total, both sides (feet) O N/A
Abov e Ground Storage Tank	Other CIRCUMFERENTIAL CRACK
O Cavern or other below ground storage facility Pump/meter station; terminal/tank farm piping and	Othor Ottoom Entert in a city of
equipment, including sumps	b. Type of block valve used for isolation of immediate section:
O Other Specify:	Upstream:
Application of the state of the	Check Valve
Onshore pipeline, including valve sites	Downstream: Manual Automatic Remote Control Check Valve
Offshore pipeline, including platforms	c. Length of segment isolated 48,223 ft
if failure occurred on <b>pipeline</b> , complete items a - g:	d. Distance between valves48,223 ft
4. Failure occurred on	e. Is segment configured for internal inspection tools? Yes O No
Body of Pipe	f. Had there been an in-line inspection device run at the point of
O Component O Valve O Metering Facility	failure? Yes O No O Don't Know O Not Possible due to physical constraints in the system
O Repair Sleev e O Welded Fitting O Bolted Fitting O Girth Weld	
O Other (specify)	g. If Yes, type of device run (check all that apply)  High Resolution Magnetic Flux tool Year run:
, , , ,	Low Resolution Magnetic Flux tool Year run:
Year the component that failed was installed: /	UT tool Year r
Maximum operating pressure (MOP)     a. Estimated pressure at point and time of accident:	▼ Geometry tool Year run: 2004
<u>150</u> <i>PSIG</i>	Caliper tool Year run:
b. MOP at time of accident:	Crack tool Year r
c. Did an overpressurization occur relating to the accident?	Hard Spot tool Year ru
O Yes  No	Other tool Year ru
PART D - MATERIAL SPECIFICATION	PART E-ENVIRONMENT
1. Nominal pipe size (NPS) <u>/ 6.63</u> / in.	1. Area of accident O In open ditch
2. Wall thickness	O Under pavement O Above ground
3. Specification API-5L SMYS / 46000 /	O Under water
4. Seam type LF ERW	O Inside/under building O Other
5. valve type	
6. Manufactured by LONE STAR STEEL in year ! 1960 !	2. Depth of cover: 84 inches
PART F - CONSEQUENCES	
Consequences (check and complete all that apply)     a. Fatalities Injuries	c. Product ignited O Yes ● No d. Explosion O Yes ● No
·	e. Evacuation (general public only) 1 people
Contractor employees working for operator:	Reason for Evacuation:
General public: 0 0	O Precautionary by company
Totals: 00	O Evacuation required or initiated by public official
b. Was pipeline/segment shutdown due to leak? O Yes  No	f. Elapsed time until area was made safe:
If Yes, how long? days hours minutes	/ <u>60</u> / hr. <u>/45</u> / min.
2. Environmental Impact	. Water Contamination: ○ Yes ● No (If Yes, provide the following)
Bird Sylvaddatic Sylvad No	Amount in water barrels
Terrestrial O Yes ♥ No b. Soil Contamination O Yes No	Ocean/Seawater O No O Yes
If Yes, estimated number of cubic yards:	Surface O No O Yes
c. Long term impact assessment performed: O Yes  No	Groundwater O No O Yes
d. Anticipated remediation O Yes  No	Drinking water O No O Yes (If Yes, check below.) O Priv ate well O Public water intake

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PART-G - LEAK DETECTION INFORMATION
1. Computer based leak detection capability in place? O Yes ● No
2. Was the release intially detected by? (check one): O CPWSCADA-based system with leak detection
O Static shut-in test or other pressure or leak test
O Local operating personnel, procedures or equipment
Remote operating personnel, including controllers
O Air patrol or ground surveillance
O A third party O Other (specify)
3. Estimated leak duration days 2 hours 18
PART H-APPARENT CAUSE  Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Secc the instructions for guidance.
H1 - CORROSION a. Pipe Coating b. Visual Examination c. Cause of Corrosion
1. O External Corrosion O Bare O Localized Pitting O Galvanic O Atmospheric O Stray Current O Microbiological
O Other O Cathodic Protection Disrupted
2. O Internal Corrosion Cracking O Stress Corrosion Cracking O Selective Seam Corrosion
(Complete items a - e
where applicable.)
d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident? O No O Yes, Year Protection Started: <u>I</u>
e. Was pipe previously damaged in the area of corrosion? O No O Yes => Estimated time prior to accident: // years _// months Unknown
O No O Yes => Estimated time prior to accident: // years // months Unknown
H2 - NATURAL FORCES
3. O Earth Movement =>O Earthquake O Subsidence O Landslide O Other
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other
5. O Reavy Rains/Floods => O Washbuts O Flotation O Middside O Scotling O Other
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other
7. O High Winds
H3 - EXCAVATION DAMAGE
8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party (complete a-f)
a. Excaviator group O General Public O Government O Excaviator other than Operator/subcontractor
b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Raildroad
O Other liquid or gas transmission pipeline-operator or their contractor
O Nautical Operations O Other
c. Excavation was: O Open Trench O Sub-strata (boring, directional drilling, etc)
d. Excavation was an ongoing activity (Month or longer) O Yes No If Yes, Date of last contact / /
e. Did operator get prior notification of excavation activity?
O Yes; Date received:/ mo/ day/ yr. O No
Notification received from: O One Call System O Excavator O Contractor O Landowner
f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv) i. Temporary markings: O Flags O Stakes O Paint ii. Permanent markings: O Yes O No iii. Marks were (check one): O Accurate O Not Accurate iv. Were marks made within required time? O Yes O No
H4 - OTHER OUTSIDE FORCE DAMAGE
10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

	D/OR WELD FAI	LUINES .			
Material	_				
14. O Body of Pipe	≓>O Dent	O Gouge	O Bend	O Arc Burn	O Other
15. O Component	=>O Valve	O Fitting	O vessel	O Extruded Outlet	O Other
16. O Joint	=Ø Gasket	O O-Ring	O Threads		O Other
Weld					
17. O Butt	=Ø Pipe	O Fabricati	on		O Other
18. O Fillet	=Ø Branch	O Hot Tap	O Fitting	O Repair Sleeve	O Other
19. O Pipe Seam	=>O LF ERW	O DSAW	O Seamless	O Flash Weld	
	O HF ERW	O saw	O Spiral		O Other
Complete a-g if yo	u indicate any c	euse in nai			
a. Type of failure:	U IIIUICAIC any C	ause in pai	lπυ.		
	Defect ≔> O F	Poor Workmans	ship O Proced	iure not followed C	Poor Construction Procedures
1		etained in trans	enortation to the c	opstruction or fabricatio	on site? O Yes O No
				O Yes, complete d-	
d. Date of test:			/ mo/		g
	O Water O	Inert Gas	O Other		
	pressure: /				
	ressure at point of		. Б	PSIG	
				0.0	
H6 - EQUIPMENT	· <del>.</del>				
	Control/Relief Equi	pment =>		O Instrumentation	O SCADA O Communications
	Control/Relief Equi		O Control valve	O Instrumentation	O SCADA O Communications O Power failure
	Control/Relief Equi		O Control valve	O Instrumentation O Relief valve	
		pling =>	O Control valve O Block valve O Other	O Instrumentation O Relief valve	
20. O Malfunction of		pling => =>	O Control valve O Block valve O Other O Nipples	O Instrumentation O Relief valve O Valve Threads	O Power failure
20. O Malfunction of  21. O Threads Strippe	d Broken Pipe Coul	pling => =>	O Control valve O Block valve O Other O Nipples O Other	O Instrumentation O Relief valve O Valve Threads	D Power failure  D Dresser Couplings
20. O Malfunction of  21. O Threads Strippe  22. O Seal Failure  H7 - INCORRECT OF	d Broken Pipe Coul	pling => =>	O Control valve O Block valve O Other O Nipples O Other	O Instrumentation O Relief valve O Valve Threads	D Power failure  D Dresser Couplings
20. O Malfunction of  21. O Threads Strippe  22. O Seal Failure  H7 - INCORRECT OF  23. O Incorrect Opera  a. Type O Inadec	ed Broken Pipe Coup PERATION tion quate Procedures	pling => =>	O Control valve O Block valve O Other O Nipples O Other O Gasket O Other	O Instrumentation O Relief valve O Valve Threads	D Power failure  D Dresser Couplings  D Seal/Pump Packing
20. O Malfunction of  21. O Threads Strippe  22. O Seal Failure  H7 - INCORRECT OF	PERATION tion	pling => => 0 Inadequate	O Control valve O Block valve O Other O Nipples O Other O Gasket O Other	O Instrumentation (O Relief valve CO Valve Threads CO O-Ring CO Failure to Follow	D Power failure  D Dresser Couplings  D Seal/Pump Packing
20. O Malfunction of  21. O Threads Strippe  22. O Seal Failure  H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other	PERATION tion	pling => => 0 Inadequate	O Control valve O Block valve O Other O Nipples O Other O Gasket O Other	O Instrumentation (O Relief valve CO Valve Threads CO O-Ring CO Failure to Follow	Procedures  Power failure  Description  Desc
20. O Malfunction of  21. O Threads Strippe  22. O Seal Failure  H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other b. Number of employee  H8 - OTHER	PERATION tion quate Procedures es involved who fail	pling => => O Inadequate	O Control valve O Block valve O Other O Nipples O Other O Gasket O Other e Safety Practices dent test: drug te	O Instrumentation (O Relief valve (O Valve Threads (O O-Ring (O O-	D Power failure  D Dresser Couplings  D Seal/Pump Packing  Procedures
20. O Malfunction of  21. O Threads Strippe  22. O Seal Failure  H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other b. Number of employee  H8 - OTHER  24. Miscellaneous, of Investigation	PERATION  tion quate Procedures es involved who fail	O Inadequate	O Control valve O Block valve O Other O Nipples O Other O Gasket O Other e Safety Practices dent test: drug te	O Instrumentation (O Relief valve (O Relief valve (O Valve Threads (O O-Ring	D Power failure D Dresser Couplings D Seal/Pump Packing Procedures alcohol test
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20. O Malfunction of  21. O Threads Strippe  22. O Seal Failure  H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inadec O Other b. Number of employee  H8 - OTHER  24. Miscellaneous, of Investigation PART I - NARRATIVE	PERATION  tion quate Procedures es involved who fail  describe: CIRCUM on Complete O DESCRIPTION O	O Inadequate led a post-acci IFERENTIAL ( Still Under Inv	O Control valve O Block valve O Other O Nipples O Other O Gasket O Other e Safety Practices dent test: drug te	O Instrumentation O Relief valve O Relief valve O Valve Threads O O-Ring O	D Power failure D Dresser Couplings D Seal/Pump Packing Procedures alcohol test

# ATTACHMENT PART I NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT ON 12/30/07, COMPANY OPERATIONS CONTROL PERSONNEL (OC) OBSERVED GRADUALLY DECLINING PRESSURES ON A SEGMENT OF PIPE THAT WAS SHUT IN. OC CALLED FIELD OPERATIONS PERSONNEL TO CHECK FOR A POTENTIAL LEAK. THE LEAK WAS IDENTIFIED IN A REMOTE AREA AT ABOUT 21:15 ON 12/30/07 BY WALKING THE ROW WITH AN LEL MONITOR. THERE WAS NO VISIBLE VAPOR CLOUD AT THE TIME OF DISCOVERY. PRODUCT WAS FLARED AND VENTED UNTIL THE LEAK AREA WAS MADE SAFE. THE FAILURE WAS CUT OUT AND SENT TO STORK METTALLURGICAL CONSULTANTS, INC WHO DETERMINED THE ABOVE CAUSE. ABOUT 100 BBLS OF PRODUCT WAS ESTIMATED RELEASED AT THE LEAK SITE, AND A TOTAL OF ABOUT 1900 BBLS WAS ESTIMATED LOST, INCLUDING CONTROLLED FLARING AND VENTING AT THE BLOCK VALVES. THE VALUE OF PRODUCT LOST WAS FOR THE 1900 BBL VOLUME.



U.S. Department of Transportaion Research and Special Programs Administration

# ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date MAY 17,2006

No. <u>20060137 — 4510</u> (DOT Use Only)

INSTRUCTIONS	<del>" . " " . " . " . " . " . " . " . " . "</del>	
Important: Please read the separate instructions for con		
requested and provide specific examples. If		of the instructions you can obtain one from
the Office Of Pipeline Safety Web Page at		

	Offshore: O Yes   No (comple d if offshore)
a. Line segment name or ID14W     b. Accident on Federal land other than Outer Continental	d. Area Block #
Shelf O Yes No  c. Is pipeline interstate? Yes O No	State/
Location of system involved (check all that apply)	a. Type of leak or rupture
Operator's Property	O Leak: O Pinhole O Connection Failure (complete sec. H5)
Pipeline Right of Way	O Puncture, diameter (inches)
High Consequence Area (HCA)?     Describe HCA HPA	Rupture: O Circumferential - Separation Longitudinal - Tear/Crack, length (Inches) 7
3. Part of system involved in accident	Propagation Length, total, both sides (feet) 3
Above Ground Storage Tank Cavern or other below ground storage facility	O Other
O Pump/meter station; terminal/tank farm piping and	h. Time of block uphic wood for indicating of impacting a fire
equipment, including sumps O Other Specify:	b. Type of block valve used for isolation of immediate section:  Upstream:
Onshore pipeline, including valve sites	Manual Automatic Remote Control Check Valve
O Offshore pipeline, including platforms	Downstream: Manual Automatic Remote Control Check Valve
if failure occurred on <b>pipeline</b> , complete items a - g:	c. Length of segment isolated <u>94.982</u> ft
4. Failure occurred on	d. Distance between valves94,982 ft
Q Body of Pipe Pipe Seam Q Scraper Trap	e. Is segment configured for internal inspection tools? Yes O No
O Pump O Sump O Joint Component O Valve O Metering Facility	f. Had there been an in-line inspection device run at the point of failure? Yes O No O Don't Know
Q Repair Sleeve O Welded Fitting O Bolted Fitting	O Not Possible due to physical constraints in the system
O Girth Weld O Other (specify)	g. If Yes, type of device run (check all that apply)
O Other (specify)	High Resolution Magnetic Flux tool Year run: 2005
Year the component that failed was installed: /	Low Resolution Magnetic Flux tool Year run:
5. Maximum operating pressure (MOP)	UT tool Year r
Estimated pressure at point and time of accident:     990 PSIG	☐ Geometry tool Year run:
b. MOP at time of accident:	X Crack tool Year n 2005
c. Did an overpressurization occur relating to the accident?	Hard Spot tool Year ru
O Yes  No	Other tool Year n
PART D - MATERIAL SPECIFICATION	PART E - ENVIRONMENT
1. Nominal pipe size (NPS)/ 12.75/ in.	1. Area of accident O In open ditch
2. Wall thickness .2 / in.	O Under pavement O Above ground
3. Specification <u>5L</u> SMYS / <u>52000 /</u> 4. Seam type <u>LF ERW</u>	Underground O Under water
5. valve type	O Inside/under building O Other
6. Manufactured by BETHLEHEM In year I 1964 I	2. Depth of cover:48 inches
PART F - CONSEQUENCES	
Consequences (check and complete all that apply)     a. Fatalities Injuries	c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
,	e. Evacuation (general public only) 1 4 1 people
Contractor employees working for operator: 0 0	Reason for Evacuation:
General public:0	O Precautionary by company
Totals: 00	Evacuation required or initiated by public official
and the second s	f. Elapsed time until area was made safe:
If Yes, how long? 2 days 7 hours 3 minutes	/_4 / hr// min.
2. Environmental Impact a. Wildlife Impact: Fish/aquatic Yes O No Bird Yes No	. Water Contamination: ■ Yes O No (If Yes, provide the following) Amount in water4 barrels
Terrestrial O Yes No b. Soil Contamination Yes O No	Ocean/Seawater No O Yes
If Yes, estimated number of cubic yards: 50,000	Surface ○ No ● Yes
c. Long term impact assessment performed: Yes O No	Groundwater O No 9 Yes
d. Anticipated remediation  Yes  ONo	Drinking water No O Yes (If Yes, check below.) Private well O Public water intake
If Yes, Check all that apply: Surface water Groundwater S	Soil X Vegetation Wildlife

PART G - LEAK DETEC	
1. Computer based leak det	
2. Was the release intially of	
	O Static shut-in test or other pressure or leak test
	Local operating personnel, procedures or equipment
	O Remote operating personnel, including controllers
	O Air patrol or ground surveillance
	O A third party O Other (specify)
Estimated leak duration	
PART H - APPARENT C	you indicate. Secc the instructions for guidance.
H1 - CORROSION	a. Pipe Coating b. Visual Examination c. Cause of Corrosion
O External Corrosion	O Bare C Localized Pitting O Galvanic O Atmospheric O Stray Current O Microbiological O Cathodic Protection Disrupted
2. O Internal Corrosion	Stress Corrosion Cracking
(Complete items a - e	O Selective Seam Corrosion O Other
where applicable.)	
	d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?  O No O Yes, Year Protection Started: I
	e. Was pipe previously damaged in the area of corrosion?  O No O Yes => Estimated time prior to accident: // years // months Unknown
H2 - NATURAL FORCES	
3. O Earth Movement	=>O Earthquake O Subsidence O Landslide O Other
4. O Lightning	
5. O Heavy Rains/Floods	=>O Washouts O Flotation O Mudslide O Scouring O Other
6. O Temperature	=> O Thermal stress O Frost heave O Frozen components O Other
7. O High Winds	
H3 - EXCAVATION DAMA	GE
8. O Operator Excavation	Damage (including their contractors/Not Third Party)
9. O Third Party (complete	e <i>a-t</i> )
a. Excavator group O Ger	oneral Public O Government O Excavator other than Operator/subcontractor
	ad Work O Pipeline O Water O Electric O Sewer O Phone/Cable
	downer-not farming related O Farming O Raildroad
	er liquid or gas transmission pipeline-operator or their contractor
O <sub>Nau</sub>	itical Operations O Other
c. Excavation was:	O Open Trench O Sub-strata (boring, directional drilling, etc)
d. Excavation was	an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact / /
e. Did operator get	prior notification of excavation activity?
O Yes; Date	received:/ mo/ day/ yr. O No
	eived from: O One Call System O Excavator O Contractor O Landowner
ıı. Permanent iii. Marks were	rked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv) markings: O Flags O Stakes O Paint markings: O Yes O No (check one): O Accurate O Not Accurate ts made within required time? O Yes O No
H4 - OTHER OUTSIDE FO	DRCE DAMAGE
	rimary cause of failure => Fire/Explosion cause: O Man Made O Natural
	vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previous	sly Damaged Pipe
13. O Vandalism	

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PHWSA Data Facsimile

1	ATERIAL AND	OR W	ÆLD FAI	_UR	ES			
Materia		_						
14, O	Body of Pipe	=>O	Dent	0	Gouge	O Bend	O <sub>Arc</sub> Burn	O Other
15. 0	Component	=>0	Valve	0	Fitting	O Vessel	O Extruded Outlet	O Other
16. 0	Joint	<b>=</b> Ω	Gasket	0	O-Ring	O Threads		O Other
Weld								
17. 0	Butt	<b>=</b> .O	Pipe	0	Fabrication	n	•	O Other
18. O	Fillet	Q:=	Branch	0	Hot Tap	O Fitting	O Repair Sleeve	O Other
19.	Pipe Seam		LF ERW			O Seamless	OFlash Weld	
		0	HF ERW	0	SAW	O Spiral		O Other
Compl							<b></b>	
-	<i>ete a-g if you</i> Type of failure:	marc	ate any c	aus	e in pari	нэ.		•
		of oct	=> O =	loor l	Morkmanch	nip O Procedu	re not followed (	Poor Construction Procedures
Ö			- <b>U</b> 1	001 1	YORKIII ARISI	iip	ile not rollowed	7 (or Construction recedures
_			damaga eur	etain	ad in traner	portation to the co	netruction or fabrication	on site? O Yes • No
							Yes, complete d	_
	vas part which is Date of test:					_/ mo. <u>/ 29</u>	•	-g - 140
			-				•	
	ime held at test p					other		
	stimated test pre					1222 DS	SIG	
		Josuic (	at point of	acon				· · · · · · · · · · · · · · · · · · ·
	UIPMENT				_		0.	0
20. U	Malfunction of C	ontrol/F	Relief Equip	men			O Instrumentation	
							O Relief valve	
O .							0	
21. 0	Threads Stripped	Broken	n Pipe Coup	oling		• •		O Dresser Couplings
					C	Other		
22. O :	Seal Failure						O-Ring (	O Seal/Pump Packing
		-			С	Other		
H7 - INC	ORRECT OP	RATI	ON					
23. O I	ncorrect Operation	oπ						
a. Type			cedures	0 1	nadequate :	Safety Practices	O Failure to Follow	v Procedures
7	O Other				<b>-</b>	<b>,</b>		
b. Numb			ed who fail	ed a	post-accide	ent test: drug tes	t: <u>/</u>	alcohol test //
H8 - OT					•			
24 O N	/liscellaneous, de	scribe						
			· ———	-				
25. O L	Inknown O Investigation	Comp	lete O	Still (	Jnder Inves	stigation (Submit	a supplemental repor	t when investigation is complete)
						-		(Attach additional sheets as necessary)
		a demails as a	erealist remainment					
		OPM EI	OT ON API	RIL 1	7, 2006, A F	RUPTURE OCCUI		
	ON'S CONTRAC	T PER	SONNEL V	VOR	KING NEA	R THE AREA WI	RRED ON PLANTATI TNESSED AND REPO	ON'S 12-INCH 14W PIPELINE. DRTED THE RELEASE TO THE CONTROL
CENTER II	ION'S CONTRAC N ALPHARETTA	T PER , GEOI	SONNEL V RGIA. API	VOR PROX	KING NEA KIMATELY	R THE AREA WI 7 553 BARRELS O	RRED ON PLANTATI TNESSED AND REPO F TURBINE FUEL W	ION'S 12-INCH 14W PIPELINE.
CENTER II	ION'S CONTRAC N ALPHARETTA	T PER , GEOI	SONNEL V RGIA. API	VOR PROX	KING NEA KIMATELY	R THE AREA WI	RRED ON PLANTATI TNESSED AND REPO F TURBINE FUEL W	ON'S 12-INCH 14W PIPELINE. DRTED THE RELEASE TO THE CONTROL
CENTER II	ION'S CONTRAC N ALPHARETTA	T PER , GEOI	SONNEL V RGIA. API	VOR PROX	KING NEA KIMATELY	R THE AREA WI 7 553 BARRELS O	RRED ON PLANTATI TNESSED AND REPO F TURBINE FUEL W	ON'S 12-INCH 14W PIPELINE. DRTED THE RELEASE TO THE CONTROL
CENTER II	ION'S CONTRAC N ALPHARETTA	T PER , GEOI	SONNEL V RGIA. API	VOR PROX	KING NEA KIMATELY	R THE AREA WI 7 553 BARRELS O	RRED ON PLANTATI TNESSED AND REPO F TURBINE FUEL W	ON'S 12-INCH 14W PIPELINE. DRTED THE RELEASE TO THE CONTROL



U.S. Department of Transportation Research and Special Programs Administration

# ACCIDENT REPORT - HAZARDOUS LIQUID PIPELINE SYSTEMS

Report Date NOV 21,2006

No. <u>20060326</u> - 5384 (DOT Use Only)

INSTRUCTIONS		And the second s	
Important: Please read the separate instructions for cor			
requested and provide specific examples. If the Office Of Pipeline Safety Web Page at http		of the instructions you can obtain one from	
DISTRIBUTED TO DE DESCRIPTION DE LA CONTRACTION DEL CONTRACTION DE LA CONTRACTION DE			
	」 Original Report	Supplemental Report	
<ol> <li>a. Operator's OPS 5-digit Identification Number (if know)</li> <li>b. If Operator does not own the pipeline, enter Owner's OPS 5-digit I</li> </ol>		/	
c. Name of Operator ENTERPRISE PRODUCTS OPERATING LP			
d. Operator street address 1100 LOUISIANA STREET			
e. Operator address HOUSTON HARRIS TX 77002  City, County, State and ZIP Code			
IMPORTANT: IF THE SPILL IS SMALL, THAT IS, THE AMOUNT IS	AT LEAST 5 GALLONS BU	JT IS LESS THAN 5 BARRELS, COMPLETE THIS	
PAGE ONLY, UNLESS THE SPILL IS TO WATER AS DESCRIBED AS REVISED IN CY 2001.	IN 49 CFR \$195.52(A)(4) OI	R IS OTHERWISE REPORTABLE UNDER \$195.50	
2. Time and date of the accident	5. Losses (Estimated)		
/ 944 / / 10 / / 25 / /2006 / hr. month day year	Public/Community Los	ses reimbursed by operator:	
<i>hr. month day year</i> 3. Location of accident	Public/private property	damage \$ <u>50.000</u>	
(If offshore, do not complete a through d See Part C.1)	Cost of emergency res	ponse phase \$	
) 17   00D47100   1   15   15   10   10   10   10	Cost of environmental i	remediation \$ 350,000	
a. Latitude: 39D17'23 Longitude: 97D14'25 (If not available, see instructions for how to provide specific location)	Other Costs	\$0	
b. CLAY CLAY	(describe)		
City and County or Parish	Operator Losses:		
c. KS 67432	Value of product lost	\$190,000	
State and Zip Code	Value of operator prop	erty damage \$ <u>100,000</u>	
d. Mile post/valve station ○ or Survey Station no. ● (whichever gives more accurate location)	Other Costs	\$0	
3801+79	(describe)		
4. Telephone report	Total Costs:	\$	
I         815979         I         10         I         25         I         2006 I           NRC Report Number         month         day         year			
6. Commodity Spilled ■ Yes O No (If Yes, complete Parts a through c where applicable)		c. Estimated amount of commodity involved :	
a. Name of commodity spilled ANHYDROUS AMMONIA		● Barrels ○ Gallons (check only if spill is	
b. Classification of commodity spilled:     HVLs/other flammable or toxic fluid which is a gas at ambient co	anditions	less than one barrel)	
O CO2 or other non-flammable, non-toxic fluid which is a gas at am	bient conditons	Amounts : Spilled : <u>4,513</u>	
O Gasoline, diesel, fuel oil or other petroleum product which is a liq O Crude oil	uid at ambient conditions		
		Recovered:	
CAUSES FOR SMALL SPILLS ONLY (5 gallons to under 5 barr	els) : (For large spills	[5 barrels or greater] see Part H)	
O Corrosion O Natural Forces O Excavation Damage	O Other Ous	ide Force Damage	
O Materal and/or Weld Failures O Equipment	O Incorrect C	peration Other	
PART B - PREPARER AND AUTHORIZED SIGNATURE			
JOHN S, STERRETT		(713) 381-2493	
(type or print) Preparer's Name and Title		Area Code and Telephone Number	
JSTERRETT@EPROD.COM		Area Code and Facsimile Number	
Preparer's E-mail Address		Alea Ovue and Lacomine National	
Authorized Signature (type or print) Name a	and Title Date	Area Cod and Telephone Number	
Authorized digitature (type or philit) Natite a	and the Date	. How work and transported trainings.	

Additional location information	Offshore: O Yes • No (comple d if offshore)
a. Line segment name or ID <u>WEST LEG NH3 LINE</u> b. Accident on Federal land other than Outer Continental	d. Area Block #
Shelf O Yes No	State I f or Outer Continental Shelf
c. Is pipeline interstate? ● Yes O No	Glate or Guitar Gordinantal Gron
2. Location of system involved (check all that apply)	a. Type of leak or rupture
Operator's Property  x Pipeline Right of Way	O Leak: O Pinhole O Connection Failure (complete sec. H5) O Puncture, diameter (inches)
High Consequence Area (HCA)?  Describe HCA	Rupture: O Circumferential - Separation Longitudinal - Tear/Crack, length (inches) 42
3. Part of system involved in accident	Propagation Length, total, both sides (feet) 4
Abov e Ground Storage Tank	O Other
O Cavern or other below ground storage facility O Pump/meter station; terminal/tank farm piping and	
equipment, including sumps	b. Type of block valve used for isolation of immediate section:
O Other Specify:	Upstream:  Manual Automatic Remote Control Check Valve
Onshore pipeline, including valve sites	Downstream: ☑ Manual ☐ Automatic ☐ Remote Control
Offshore pipeline, including platforms	Check Valve  c. Length of segment isolated57,517 ft
if failure occurred on <b>pipeline</b> , complete items a - g:	d. Distance between valves57,517 ft
4. Failure occurred on	e. Is segment configured for internal inspection tools? Yes O No
Body of Pipe	f. Had there been an in-line inspection device run at the point of
O Pump O Sump O Joint O Component O Valve O Metering Facility	failure? Yes O No O Don't Know
O Repair Sleeve O Welded Fitting O Bolted Fitting	O Not Possible due to physical constraints in the system
O Girth Weld	g. If Yes, type of device run (check all that apply)
O Other (specify)	High Resolution Magnetic Flux tool Year run: 2007
Year the component that failed was installed: / 1968 /	Low Resolution Magnetic Flux tool Year run:
5. Maximum operating pressure (MOP)	UT tool Year r
Estimated pressure at point and time of accident:     1.098	Geometry tool Year run: 2007
b. MOP at time of accident:	Caliper tool Year run:
	Crack tool Year n
O Yes • No	Hard Spot tool Year ru
	Other tool Year ru
PART D MATERIAL SPECIFICATION  1. Nominal pipe size (NPS) / 8.63 / in.	PART E - ENVIRONMENT
	1. Area of accident O In open ditch
2. Wall thickness	O Under pavement O Above ground
4. Seam type LF-ERW	Underground     Under water
5. valve type	O Inside/under building O Other
6. Manufactured by LONE STAR STEEL in year   1968	0.00 % 6 % 50 % 500 %
PART F - CONSEQUENCES	2. Depth of cover: 52 inches
Consequences (check and complete all that apply)	
a. Fatalities Injuries	c. Product ignited ○ Yes ● No d. Explosion ○ Yes ● No
Number of operator employees: 0	e. 🗷 Evacuation (general public only) 📗 4 💹 l people
Contractor employ ees working for operator:	Reason for Evacuation:
General public: 2	Precautionary by company
Totals:	O Evacuation required or initiated by public official
b. Was pipeline/segment shutdown due to leak? Yes O No	f. Elapsed time until area was made safe:
If Yes, how long? 3 days 13 hours 1 minutes	/
2. Environmental Impact a. Wildlife Impact: Fish/aquatic President	e. Water Contamination: Yes O No (If Yes, provide the following)  Amount in water barrels
Terrestrial _ ● Yes O No	Ocean/Seawater No O Yes
<ul> <li>b. Soil Contamination ■ Yes O No</li> <li>If Yes, estimated number of cubic yards: 4,000</li> </ul>	Surface ○ No ● Yes
c. Long term impact assessment performed: ○ Yes ● No	Groundwater O No Yes
d. Anticipated remediation ● Yes O No	Drinking water ■ No O Yes <i>(If Yes, check below.)</i> O Private well O Public water intake
· ·	Soil Vegetation Wildlife

PART G - LEAK DETECTION INFORMATION
1. Computer based leak detection capability in place? ○ Yes ● No
2. Was the release intially detected by? (check one): O CPWSCADA-based system with leak detection
O Static shut-in test or other pressure or leak test
O Local operating personnel, procedures or equipment
O Remote operating personnel, including controllers
O Air patrol or ground surveillance
A third party O Other (specify)
3. Estimated leak duration days 3 hours 5   Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary
PART H - APPARENT CAUSE  Important: There are 25 numbered causes in this Part H. Check the box corresponding to the primary cause of the accident. Check one circle in each of the supplemental categories corresponding to the cause you indicate. Second the instructions for guidance.
H1 - CORROSION a. Pipe Coating b. Visual Examination c. Cause of Corrosion
1. ■ External Corrosion
O Other Q Cathodic Protection Disrupted
2. O Internal Corrosion Oracking Stress Corrosion Cracking Selective Seam Corrosion
(Complete items a - e
where applicable.)
d. Was corroded part of pipeline considered to be under cathodic protection prior to discovering accident?  O No Yes, Year Protection Started: / 1968 /
e. Was pipe previously damaged in the area of corrosion?  No O Yes => Estimated time prior to accident: /// / years /// months Unknown
● No O Yes => Estimated time prior to accident: // years _/_/ months Unknown
H2 - NATURAL FORCES
3. O Earth Movement =>O Earthquake O Subsidence O Landslide O Other
4. O Lightning
5. O Heavy Rains/Floods => O Washouts O Flotation O Mudslide O Scouring O Other
5. O Heavy Rains/Floods =>O washouts O Fibration O industrice O Scouring O Strict
6. O Temperature => O Thermal stress O Frost heave O Frozen components O Other
7. O High Winds
H3 - EXCAVATION DAMAGE
8. O Operator Excavation Damage (including their contractors/Not Third Party)
9. O Third Party (complete a-f)
a. Excavator group O General Public O Government O Excavator other than Operator/subcontractor
b. Type: O Road Work O Pipeline O Water O Electric O Sewer O Phone/Cable
O Landowner-not farming related O Farming O Raildroad
O Other liquid or gas transmission pipeline-operator or their contractor
O Nautical Operations O Other
c. Excavation was: Open Trench Sub-strata (boring, directional drilling, etc)
d. Excavation was an ongoing activity (Month or longer) O Yes O No If Yes, Date of last contact /
e. Did operator get prior notification of excavation activity?
O Yes; Date received:/ mo/ day/ yr. O No
Notification received from: O One Call System O Excavator O Contractor O Landowner
f. Was pipeline marked as result of location request for excavation? O No O Yes (If Yes, check applicable items i - iv) i. Temporary markings: O Flags O Stakes O Paint ii. Permanent markings: O Yes O No
ii. Permanent markings: U Yes U No
iii. Marks were (check one): O Accurate O Not Accurate iv. Were marks made within required time? O Yes O No
H4 - OTHER OUTSIDE FORCE DAMAGE
10. O Fire/Explosion as primary cause of failure => Fire/Explosion cause: O Man Made O Natural
11. O Car, truck or other vehicle not relating to excavation activity damaging pipe
12. O Rupture of Previously Damaged Pipe
13. O Vandalism

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_H5 - MATERIAL AND	/OR W	ELD FAIL	.URI	ES			
Material	_		_		_	_	_
14. O Body of Pipe	=>0	Dent	0	Gouge	O Bend	O <sub>Arc Burn</sub>	O Other
15. O Component	=>0	Valve	0	Fitting	O Vessel	OExtruded Outlet	O Other
16. O Joint	Q:=	Gasket	0	O-Ring	O Threads		O Other
Weld						94	
17. O Butt	Q;=	Pipe	0	Fabrication	1		O Other
18. O Fillet	Q:=	Branch	0	Hot Tap	O Fitting	O Repair Sleeve	O Other
19. O Pipe Seam		LF ERW			O Seamless	OFlash Weld	
		HF ERW			O Spiral		O Other
Complete a-g if you	u indic	ate any c	aus	e in part	H5		
a. Type of failure:							
O Material Defe	ect				•		Poor Construction Procedures
							on site? O Yes O No
						O Yes, complete d	
d. Date of test:					/ mo <u>/</u>		
e. Test medium:	O Wate	эг О	Ine	rt Gas (	Other		AM PARTY.
f. Time held at test	pressur	e: <u>/</u>		hr.			
g. Estimated test p	ressure:	at point of	acci	dent:	P	SIG	
H6 - EQUIPMENT							
H6 - EQUIPMENT	Control/F	Relief Equi	pme			O Instrumentation	O SCADA O Communications
	Control/F	Relief Equi	ipmei	nt => (	O Control valve	O Instrumentation	O SCADA O Communications O Power failure
	Control/F	Relief Equi	ipmei	nt => (	O Control valve O Block valve O Other	O Instrumentation O Relief valve	O Power failure
				nt => ( ( ( ; => (	O Control valve O Block valve O Other O Nipples	O Instrumentation O Relief valve O Valve Threads	
20. O Malfunction of				nt => ( ) ) ) => (	O Control valve O Block valve O Other O Nipples O Other O Gasket	O Instrumentation O Relief valve O Valve Threads O O-Ring	O Power failure O Dresser Couplings O Seal/Pump Packing
20. O Malfunction of a 21. O Threads Strippe	ed Broker	n Pipe Cou		nt => ( ) ) ) => (	O Control valve O Block valve O Other O Nipples O Other O Gasket	O Instrumentation O Relief valve O Valve Threads O O-Ring	O Power failure O Dresser Couplings
20. O Malfunction of a control of the control of th	ed Broker	n Pipe Cou		nt => ( ) ) ) => (	O Control valve O Block valve O Other O Nipples O Other O Gasket	O Instrumentation O Relief valve O Valve Threads O O-Ring	O Power failure O Dresser Couplings O Seal/Pump Packing
20. O Malfunction of a control of the control of th	ed Broker PERAT	n Pipe Cou	upling	nt => (	O Control valve O Block valve O Other O Nipples O Other O Gasket O Other	O Instrumentation O Relief valve O Valve Threads O O-Ring	O Power failure O Dresser Couplings O Seal/Pump Packing
20. O Malfunction of a control of the control of th	PERATI	n Pipe Cou  ION  ocedures	upling O	nt => (	O Control valve O Block valve O Other O Nipples O Other O Gasket O Other	O Instrumentation O Relief valve O Valve Threads O O-Ring	O Power failure O Dresser Couplings O Seal/Pump Packing w Procedures
20. O Malfunction of a control of the control of th	PERATI	n Pipe Cou  ION  ocedures	upling O	nt => (	O Control valve O Block valve O Other O Nipples O Other O Gasket O Other	O Instrumentation O Relief valve O Valve Threads O O-Ring	O Power failure O Dresser Couplings O Seal/Pump Packing
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20. O Malfunction of a control of the control of th	PERATI  ution quate Pro es involve	ION ocedures red who fa	O billed a	nt => ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	O Control valve O Block valve O Other O Nipples O Other O Gasket O Other e Safety Practices dent test: drug te	O Instrumentation O Relief valve O Valve Threads O O-Ring  O Failure to Follo	O Power failure O Dresser Couplings O Seal/Pump Packing  w Procedures alcohol test / /
20. O Malfunction of a  21. O Threads Strippe  22. O Seal Failure  H7 - INCORRECT OF  23. O Incorrect Opera a. Type O Inade O Other b. Number of employee  H8 - OTHER  24. O Miscellaneous, of Investigation	PERATION quate Production describe	ION  ocedures  red who fa	O still	nt => ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	O Control valve O Block valve O Other O Nipples O Other O Gasket O Other e Safety Practices dent test: drug te	O Instrumentation O Relief valve O Valve Threads O O-Ring  O Failure to Follo	O Power failure O Dresser Couplings O Seal/Pump Packing w Procedures alcohol test 1 1
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#### ATTACHMENT PART I NARRATIVE DESCRIPTION OF FACTORS CONTRIBUTING TO THE EVENT

CLAY COUNTY KANSAS SHERIFF DEPARTMENT CALLED ENTERPRISE PRODUCTS OPERATING LP AT 10:00 AM ON OCTOBER 25, 2006 REPORTING A VAPOR CLOUD RELEASE. OPERATING PERSONNEL VERIFIED AT 10:25 AM THAT THE RELEASE WAS ON THE WEST LEG NH3 LINE.

AFTER DISCOVERY, THE PIPELINE WAS SHUTDOWN AND LINE SEGMENT BLOCKED IN. THE PUBLIC WAS EVACUATED FROM THE RURAL SITE UNTIL ALLOWED TO RETURN AT 1400 HOUR ON OCTOBER 26, 2006. PHMSA PERSONNEL WERE ON SITE OCTOBER 26, 2006.

REPAIR BEGAN ON OCTOBER 26, 2006 AND WAS COMPLETED 28, 2006. THE RUPTURE SEGMENT WAS SENT FOR A METALLURGICAL ANALYSIS TO STRESS ENGINEERING IN HOUSTON, TX.

THE METALLURGICAL EVALUATION CONCLUDED THAT THE CAUSE OF THE RUPTURE WAS METAL LOSS FROM EXTERNAL CORROSION. ALSO, BASED ON METALLOGRAPHIC EXAMINATION AND MECHANICAL TESTING, THE LONG SEAM WELD WAS FOUND TO BE ACCEPTABLE.

THE REPAIRED LINE SEGMENT IS CURRENTLY OPERATING AT A 20% PRESSURE REDUCTION PURSUANT TO CORRECTIVE ACTION ORDER CPF NO. 3-2006-5044H.